DOCUMENT RESUME

ED 238 636 RC 014 506

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TITLE Canoeing.
INSTITUTION Safari Club International Conservation Fund, Tucson, Ariz.
PUB DATE 79
NOTE 99p.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Course Content; Course Descriptions; *Course Objectives; Course Organization; *Educational Games; Elementary Secondary Education; Experiential Learning; Higher Education; *Instructional Materials; *Learning Activities; *Outdoor Education; *Performance Tests; Safety; Skill Development; Student Evaluation; Teacher Characteristics; Teaching Guides; Teaching Methods
IDENTIFIERS American Red Cross; *Canoeing

ABSTRACT

Designed to be used in conjunction with the book "Canoeing", published by the American Red Cross in 1977, the teaching packet provides assistance in organizing and teaching a basic canoeing class. The packet lists 20 class objectives and details essential and recommended equipment and safety precautions. The packet contains a 15-day unit plan with an accompanying planning guide that describes teaching procedures ; Experiential Learning the unit plan. In addition, the packet contains teaching hints which include general suggestions and information about canoeing skill analysis, review methods, combination strokes, and rainy day activities. Sections on canoe formations, games and contests, and a canoeing routine contain information rarely found in print. A variety of activities is listed for each of nine formations in which canoes may be placed for efficient class organization. Rules and variations are included for 13 games and contests, as are diagrams and explanations of a canoeing routine. The packet concludes with a skill test, a skills checklist, and a written canoeing exam with answers. The packet contains 22 overhead transparency masters. (SB)

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CANOEING

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CANOEING

A PROJECT OF SAFARI CLUB INTERNATIONAL CONSERVATION FUND
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Printed by Concept Graphics • Tucson, Arizona

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NOTE: This teaching packet is designed to be used in conjunction with the book CANOEING, by the American Red Cross, 1977.

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GENERAL INFORMATION

INTRODUCTION

Canoeing has gained tremendous popularity in recent years and is one of the more popular outdoor adventure sports taught in schools, colleges and recreational programs. As a recreational sport, canoeing offers a lifetime of healthful and leisure-oriented activity. Participation also brings people into contact with important conservation and environmental problems. A basic understanding of these problems may lead to the development of attitudes necessary for their solution.

This teaching packet is designed to be used in conjunction with the book entitled Canoeing by the American Red Cross. This 452-page book, written by the experts and published in 1977, is the latest information on every facet of the sport of canoeing. The book can be purchased at the county chapters of the American Red Cross for $3.95.

It is highly recommended that the book be read and studied in its entirety by the instructor utilizing this teaching packet. However, of the 15 chapters in the book, only chapters 1 through 10 and the glossary serve as specific reference material for this packet.

The individual who chooses to teach canoeing and who chooses to use this packet of materials need not be a certified instructor*, although this is recommended, but should possess definite characteristics. An instructor should be capable of demonstrating the strokes and other skills using proper techiques. This does not mean that one must be an "expert" before attempting to teach a unit in canoeing, but it implies that the individual should have a commitment to continue to improve and to attain a high level of competence. The instructor of canoeing should be safety oriented, that is, dedicated to conducting all class sessions in a safe manner and to imparting safe practices to the canoeists. The instructor should also be dedicated to using sound teaching methods, as suggested in this packet.

CONTENTS OF PACKET

The material that follows is designed to provide assistance in organizing and teaching a basic canoeing class. This information includes a 15-DAY UNIT PLAN and a TOPICAL PLANNING GUIDE which expands on various content

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*Certified by such groups as the American Red Cross or the American Canoeing Association

areas mentioned in the unit plan. The topics in the planning guide section appear in alphabetical order. Teaching procedures, activities and formations are suggested for each of the 25 topics or content areas that appear in the 15-day plan.

The 15-DAY UNIT PLAN is offered as a viable plan for a class having access to the necessary equipment and functional teaching sites. Obviously, the plan may need to be adapted, depending on such factors as: (1) age and skill level of participants; (2) length of class period; (3) number of days available for the unit; (4) type and amount of equipment available; (5) skill level of the instructor; and (6) the availability of the three recommended teaching sites (pool, lake and river).

The TEACHING HINTS section includes suggestions of a general nature as well as information specific to skill analysis, review methods, combination strokes, and rainy day activities.

Sections on FORMATIONS, GAMES/CONTESTS and CANOEING ROUTINE contain information rarely found in print and should prove invaluable to the instructor. A variety of activities is listed for each of nine formations in which canoes may be placed for efficient class organizations. The 13 GAMES/CONTESTS, listed in alphabetical order, are fun activities which enhance learning in an informal way. When selecting appropriate games the student's attire should be considered since several of the activities demand that the participants get wet.

The CANOEING ROUTINE offers a unique and challenging experience as it demands discipline and skill for the eight paddlers to work together since one formation flows into another.

A variety of skill tests and other evaluation procedures are detailed in the SKILL TESTS AND EVALUATION section. A SKILLS CHECKSHEET and a sample CANOEING EXAM are also included. EXAM ANSWERS are on page 8 of this section.

SAFETY PROCEDURES

Safety should be of major concern to the class instructor throughout the course. Each class session should be properly supervised. Safe canoeing practices should be brought to the direct attention of the canoeists at the beginning of the unit as well as when any unsafe act occurs or unsafe condition exists. Canoeists should use the buddy-canoe system when engaged in activities during free paddling time. A suitable signal for recall should be in operation for emergencies such as adverse weather conditions (lightning, hail, etc.).

The 5-minute swim test should be given to all prospective canoeists to determine their swimming ability. Clothing suitable for canoeing should be worn during the 5-minute swim test. Using the buddy system provides a safe and efficient method of administering the test. It is highly recommended that those failing this simple test be denied admission to the course, since they are obviously not capable of taking care of themselves in an emergency situation in the water.

Lifejackets should be worn at all times when canoeing. Even the strongest swimmer needs a lifejacket due to the possibility of receiving a blow to the head when capsizing or of the shock of cold water draining their energy.

Each class member should dress appropriately for class as well as for river trips. If the quality of the water at the canoeing site is suitable for swimming, the students should be instructed to wear bathing suits or cut-offs for capsizing activities. Canoeists should wear sneakers on the bank and in the canoe, as well as in the water.

ADDITIONAL RESOURCES AND EQUIPMENT

The material in Chapters 2 and 3 of Canoeing will serve as an aid to becoming more familiar with types of canoes and paddles. Brochures from a variety of canoe manufacturers could be obtained in order to become more knowledgeable about canoe materials such as aluminum, fiberglass, ABS Royalex, Zylar, Ram-X, Kelvar 49, Oltonar, etc. In order to determine whether a standard keel, a whitewater or shoe keel, or no keel is most desirable, consideration must be given to the instructional site and the rivers most often canoed.

If it is the responsibility of the instructor using this teaching packet to buy canoes, various canoe manufacturers and retailers should be consulted. There are advantages and disadvantages to each material type and canoe style. Many factors must be considered such as initial cost, durability, and where the canoe will most often be used.

The instructor may wish to explore the possibility of borrowing or renting equipment until a canoeing program is established since the total equipment needs represent a sizeable investment. Ideally, one 15- to 17-foot canoe should be available for every two students. If the ratio is 3 to 1, the extra person is a passenger and should exchange positions often with the other canoeists. A 4-to-1 ratio would mandate that the extras wait their turn on the banks. This arrangement is highly undesirable.

A power megaphone is listed as an essential item of equipment because the design of this unit allows the instructor to be in verbal contact with the paddlers at all times. The use of this single piece of equipment will facilitate the instructor's ability to enhance the learning process. The price of a power megaphone is small, indeed, compared to the result. However, if a power megaphone cannot be obtained, a system of signals may be devised utilizing devices such as a whistle, air horn, or flag. For example: one blast of the whistle means "change positions."

This canoeing unit is designed to aid the instructor in the student's quest for acquiring canoe handling skills and meeting the following objectives.

UNIT OBJECTIVES

The student should be able to

1. demonstrate swimming ability by swimming continuously for five minutes while fully clothed.

2. demonstrate skill in capsizing, swamping, and selected rescue situations.

3. identify the major parts of a canoe and paddle.

4. select a paddle of proper length.

5. demonstrate proper use of a lifejacket.

6. efficiently carry a canoe utilizing two, three, or four people.

7. properly tie a bowline knot, double half hitch, and clove hitch.

8. safely launch and board a canoe.

9. execute each of the paddling strokes in a proficient manner.

10. safely change paddling positions while canoe is afloat.

11. effectively maneuver a canoe utilizing various stroke combinations.

12. relate strokes according to how each one affects the bow of the canoe.

13. effectively maneuver a canoe in structured formations.

14. demonstrate skill in avoiding obstacles in an efficient manner as required in running obstacle courses.

15. demonstrate proper techniques in administering artificial resuscitation.

16. become acquainted with solo paddling techniques.

17. respond clearly to a given situation by employing proper strokes unaided by directions from the instructor.

18. utilize skills in a relaxed setting through participation in games and contests.

19. demonstrate a knowledge of canoeing by scoring well on a written test.

20. demonstrate an awareness of safety precautions as exhibited in class behavior.

EQUIPMENT

Essential Equipment:

Canoes (1 for each 2 students)

8

Paddles (assorted lengths)

Lifejackets (1 for each student)

Power megaphone

Throw Rope (60-75 feet, 3/8" diameter, floating type material such as polypropelene)

Bow and stern lines (two 15-foot lines for each canoe)

Plastic jugs (gallon-size milk or bleach), cord, and weights/bricks for buoys

Recommended Equipment:

Cord/rope lengths for knot-tying sessions (rainy day activities)

Brooms (for games/contests)

Bailers (gallon-size milk containers with the end cut out)

Charts, posters, bulletin boards, etc.

Films

Movie projector and screen

Overhead projector

Flags/markers (stakes or discarded arrows to hold paper or vinyl flags to use as directional markers)

Small portable chalkboard (2' x 3'), chalk, and eraser

Whistle or "cheerleader" type megaphone (if a power megaphone is not available), or air horn

Kneeling pads

Slide projector and slides (for rainy day activity)

RESOURCES

Books:

Anderson, L.A. A Guide to Canoe Camping. Chicago: Reilly and Lee, 1969.

Davidson, J.W., and Ruggee, J. The Complete Wilderness Paddler. New York: Alfred A. Knopp, Inc., 1976.

Esslen, Rainer. Back to Nature in Canoes: A Guide to American Waters. Frenchtown, N.J.: Columbia Publishing Co., 1976.

Evans, G. Heberton. Canoeing Wilderness Waters. New York: A.S. Barnes and Co., 1975.

Gordon, I. Herbert. The Canoe Book. New York: McGraw-Hill Book Co., 1978.

Huser, Verne. River Running. Chicago: Henry Regnery Co., 1975.

Johnson, Joann M. Canoe Camping. Dubuque, Iowa: Wm. C. Brown Co. Publishers, 1978.

Pamphlets

Hypothermia and Cold Water Survival. Department of Transportation, U.S. Coast Guard (Aux. 202).

Welcome Paddler. U.S. Canoe Association, 606 Ross Street, Middletown, Ohio 45042.

Whitewater! A Guide to Safe River Boating in Canoe, Kayak or Raft. Texas Parks and Wildlife Department, Austin, Texas 78701.

Whitewater in an Open Canoe. American Red Cross (ARC #2173).

Magazines

American Whitewater
Magazine of the American Whitewater Affiliation
P. O. Box 321
Concord, N.H. 03301

Canoe
Magazine of the American Canoe Association
4260 E. Evans Avenue
Denver, Colorado 80222

Wilderness Camping
1597 Union Street
Schenectady, N.Y. 12309

Associations

American Canoe Association
4260 E. Evans Avenue
Denver, Colorado 80222

American Whitewater Affiliation
P. O. Box 321
Concord, New Hampshire 03301

United States Canoe Association
6338 Hoover Road
Indianapolis, Indiana 46260

Miscellaneous

Local canoe clubs

State canoe organizations

State parks and wildlife departments

State tourism departments

U.S. Corps of Engineers

Local canoe rental agent or outfitter

American Red Cross small craft safety personnel

Sierra Club

Area newspapers -- For canoeing articles, and water flow and water level information

Maps: State highway maps, county maps, U.S. Geological Survey topographical maps

Local and state canoeing guide books

Visual Aids

Charts

American Red Cross, "Canoeing" (Instructor's Visual Aids), ARC #2128

16mm Films

Available from the American Red Cross, 17th & D Streets, Washington, D.C. 20006, or from county chapters of the American Red Cross:

Uncalculated Risk

Whitewater Primer

Whitewater

EXAM ANSWERS

Matching:

1. C	6. E	11. C
2. B	7. G	12. A
3. A	8. D	13. A
4. E	9. B	14. C
5. D	10. F	15. B

Multiple Choice:

1. B	6. A
2. A	7. A
3. A	8. B
4. B	9. B
5. A	10. B

True-False:

1. True	6. False	11. True
2. True	7. True	12. True
3. False	8. True	13. False
4. False	9. False	14. True
5. True	10. False	15. True

15-DAY UNIT PLAN
(50-MIN. PERIODS)
Note: Topics in all caps are discussed in this module.

At Swimming Pool 1 **SWIM TEST** **TEACH:** Parts of Canoe and Paddle (pp. 35-37, 53*) CANOE CARRIES PADDLE SELECTION PADDLING DOCK DRILLS Introduce FORWARD STROKE, BACK STROKE, DRAW, SWEEP STROKES and Holding	*At Lake or River* 2 **REVIEW:** Parts of Canoe **TEACH:** KNOTS LIFEJACKET SELECTION PADDLING LAND DRILLS Strokes—FORWARD STROKE, BACK STROKE, DRAW, SWEEP STROKES and Holding LAUNCHING PADDLING POSITIONS	**REVIEW:** 3 KNOTS Strokes: FORWARD, BACK, DRAW, SWEEPS - Land Drill - Water Drills **TEACH:** Strokes—DIAGONAL DRAW and PUSHAWAY STROKE CHANGING POSITIONS Combination Strokes (See Teaching Hints.)	**REVIEW:** All Strokes 4 - In Scattered Formation on their own (15 min.) - In structured FORMATIONS (20 min.) **GAMES:** Select a relay or race	**REVIEW:** All Strokes 5 Structured FORMATIONS - On Command - Unaided by instructor's directives Free Selection: Obstacle Course Follow-the-Leader Indian Running **GAME:** Jug Relay *or* Broom Paddling
REVIEW: Combination 6 Strokes (See Teaching Hints.) **TEACH:** Strokes—STERN RUDDER, STATIONARY DRAW, STATIONARY CROSS DRAW, COMPOUND BACK STROKE. (Use structured formations.) **GAME:** Backward Race	**SKILL TESTS AND** 7 **EVALUATION** (20-30 min.) Check students on: moving straight forward, backward, in a circle, weaving, a stationary pivot, and landings. Free Paddling (20 min.) *or* Individual Help	*At Swimming Pool* 8 **TEACH:** CAPSIZING/SWAMPING/ RESCUES LIFEJACKET—How to use in conjunction with capsizing, etc. ARTIFICIAL RESUSCITATION Stroke: J STROKE	**TEACH:** 9 J STROKE **REVIEW:** Combination Strokes (See Teaching Hints.) **GAME:** Rescue Relay *or* Switch-Off Relay	*Classroom* 10 **SHORT CANOEING EXAM** **SHOW TRANSPARENCIES** Give brief overview of river canoeing. **FILM** Select one of the ARC films listed in Resources.
TEACH: 11 **Strokes: SCULLING, PRY and STATIONARY PUSHAWAY SOLO PADDLING **REVIEW:** Combination Strokes (See Teaching Hints.) FORMATIONS (Pinwheel)	*Wear Swim Suits* 12 **TEACH:** **Strokes: BRACES (HIGH AND LOW) **PRACTICE:** SOLO PADDLING **GAMES** (Select 2 or 3): Swamping Contest Swamped Canoe Race Kangaroo Race Super Scoop Contest	**FINAL REVIEW** (See 13 Teaching Hints.): All strokes Combinations **PRACTICE:** SOLO PADDLING **GAME:** Buddy-Solo Paddling Race	14 **FINAL SKILL TESTS AND EVALUATION** Various culminating activities such as: Obstacle Course War Canoe Race Other GAMES/CONTESTS CANOEING ROUTINE	15

Canoeing textbook from American Red Cross.
**OPTIONAL—Dependent upon age and skill level of participants, and teaching setting (lake or river).

RATIONALE FOR UNIT PLACEMENT OF CAPSIZING/SWAMPING/RESCUES

Several schools of thought exist with regard to when capsizing and swamping should be introduced.

1. The American Red Cross recommends that these skills be demonstrated and practiced during the first session.

2. Some instructors prefer that capsizing and hand-paddling be practiced at a swimming pool before canoeing in open water. Capsizing, swamping and canoe-over-canoe rescue are then performed later in the course in open water.

3. Some instructors prefer staging a demonstration of these skills at the time of the swim test but not requiring every student to perform them at that time.

4. Some instructors feel that the capsizing and swamping drills are more meaningful to the students mid-way in the unit and that no real element of danger exists because:

   a. the student possess adequate swimming ability
   b. the student wear lifejackets while canoeing
   c. the students are in a controlled class setting

The instructor should therefore consider the above rationale in addition to other factors specific to one's individual teaching situation in resolving this issue!

DAILY CLASS ORGANIZATIONAL FORMAT

The following outline is offered as a suggested guideline for organizing daily class procedures:

I. Equipment and materials needed

II. Material to be reviewed

   A. Specific skills
   B. Formations to use

III. New skills to be introduced

   A. Terminology
   B. Explanation/demonstration/discussion
   C. Formations for structured practice
   D. Free practice

IV. Games/contests to "taper off" at end of session

V. Announcements

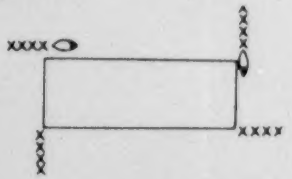
   A. Location of next class meeting
   B. Specific clothing requirement for next meeting
   C. Reading assignment

TOPICAL PLANNING GUIDE

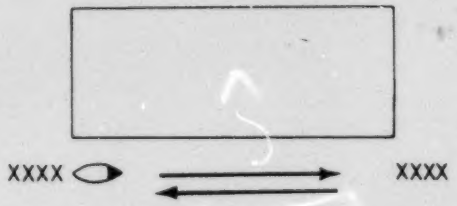
(Skills listed alphabetically)

SKILL	REFERENCE*	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
ARTIFICIAL RESUSCITATION	pp. 222-226, Canoeing	1. Explain circumstances that may cause stoppage of breathing. 2. Demonstrate mouth-to-mouth resuscitation. 3. Practice in pairs with instructor supervision.	1. -- 2. Use a Resusci-Ann if available. If not, demonstrate all techniques except actual mouth contact. 3. Scattered formation on swimming pool deck or bank of lake, pond, or river.
BACK STROKE PADDLING LAND DRILLS PADDLING DOCK DRILLS FORMATIONS	pp. 139-142	1. Explain the function of the back stroke. 2. Explain and demonstrate proper technique. 3. Practice: A. As a land drill or dock drill, if deemed appropriate B. Afloat in canoes (1) as an isolated stroke (2) in combination with other strokes	1. -- 2. Demonstration may be performed - A. On land with students on land B. Afloat with students on land 3. A. See PADDLING LAND DRILLS and PADDLING DOCK DRILLS in this section. B. Canoeists paddle in structured formations on commands from the instructor; in structured formations unaided by instructor's directives; or in scattered formations. (See FORMATIONS section.)

* All page numbers refer to Canoeing textbook.

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
**BRACES - High - Low	pp. 168-171	1. Explain the function of braces. 2. Explain and demonstrate proper technique. A. High brace B. Low brace 3. Practice afloat in canoes.	1. -- 2. Demonstration may be performed - A. Afloat with students on land B. Afloat with students afloat 3. Canoeists build up speed as they approach a buoy and then execute a high brace in the stern. This will steady the canoe while the bowman initiates the turn around the buoy using a stationary cross draw. Repeat, using a low brace -- except the turn is underway prior to the low brace being executed.
CANOE CARRIES	pp. 90-100	1. Explain selected 2-man, 3-man, and 4-man carries. 2. Demonstrate each carry selected in #1 above. 3. Practice each carry.	1. -- 2. -- 3. At swimming pool setting A. Relaying 1 or 2 canoes around pool  (continued on page 3)

**Optional; dependent upon age and skill level of participants and teaching setting (lake or river)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
CANOE CARRIES (continued)			B. Shuttle (for limited deck space) 
CAPSIZING/ SWAMPING/ RESCUES	pp. 185-195 207-212	1. Discuss what to do in case a canoe capsizes or is swamped; explain canoe over canoe rescue and buddy assistance. 2. Demonstration A. Capsizing procedures B. Swamping procedures C. Rescue of an overturned canoe D. Rescue of a buddy 3. Class practice of above procedures	1. -- 2. -- 3. A. At swimming pool, use up to 4 canoes, if available, to keep the group moving. B. At lake or pond, scattered formation using all canoes.

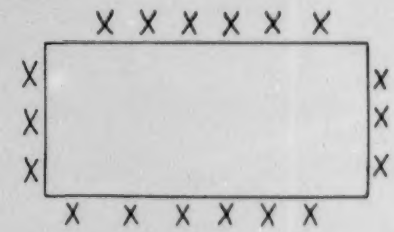
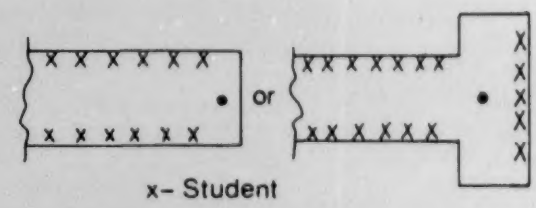
SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
CHANGING POSITIONS	pp. 128-129	1. Explain and demonstrate proper techniques. 2. Practice exchanging positions (from both the bow and stern paddling positions).	1. With canoe alongside bank, instructor in stern and a student helper in bow. Instructor explains procedure as they are exchanging positions. 2. Scattered formation using all canoes.
COMPOUND BACK STROKE	pp. 166-168 FORMATIONS	1. Explain the function of the compound back stroke. 2. Explain and demonstrate proper technique. 3. Practice.	1. -- 2. Demonstration may be performed - A. Afloat with students on land B. Afloat with students afloat 3. Canoeists practice - A. In structured formations on commands from instructor B. In structured formations unaided by instructor's directives C. In scattered formations (See FORMATIONS section)

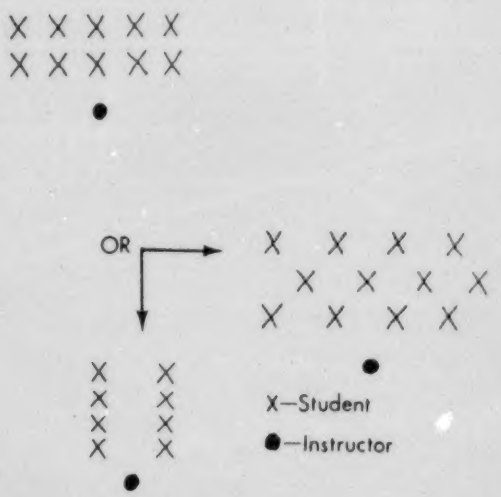
SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
DRAW STROKES - Draw - Diagonal Draw - Cross Draw	pp. 142-144 PADDLING DOCK DRILLS PADDLING LAND DRILLS FORMATIONS	1. Explain the function of the specific draw being taught. 2. Explain and demonstrate proper technique (include both types of recoveries for the draw). 3. Practice A. As a land drill or dock drill, if deemed appropriate B. Afloat in canoes (1) As an isolated stroke (2) In combination with other strokes	1. -- 2. Demonstration may be performed - A. On land with students on land B. Afloat with students on land C. Afloat with students afloat 3. A. See PADDLING LAND DRILLS and PADDLING DOCK DRILLS in this section. B. Canoeists paddle in structured formations on commands from instructor; in structured formations aided by the instructor's directives; or in scattered formations. (See FORMATIONS section)
FORWARD STROKE	pp. 135-139	1. Explain the function of the forward stroke. 2. Explain and demonstrate proper technique. (continued on page 6)	1. -- 2. Demonstration may be performed - A. On land with students on land B. Afloat with students on land (continued on page 6)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
FORWARD STROKE (continued)		3. Practice A. As a land drill or dock drill, if deemed appropriate B. Afloat in canoes (1) As an isolated stroke (2) In combination with other strokes	3. A. See PADDLING LAND DRILLS and PADDLING DOCK DRILLS in this section. B. Canoeists paddle in structured formations on commands from the instructor; in structured formations unaided by instructor's directives; or in scattered formation. (See FORMATIONS section.)
J STROKE	pp. 153-156 PADDLING DOCK DRILLS PADDLING LAND DRILLS FORMATIONS	1. Explain the function of the J Stroke. 2. Explain and demonstrate proper technique. 3. Practice A. As a land drill or dock drill, if deemed appropriate B. Afloat in canoes (1) As an isolated stroke (2) In combination with other strokes	1. -- 2. Demonstration may be performed - A. On land with students on land B. Afloat with students on land 3. A. See PADDLING LAND DRILLS and PADDLING DOCK DRILLS in this section. B. While the sternman practices only the J Stroke, the canoeists paddle in structured formations on commands from instructor; in structured formations unaided by instructor's directives; or in scattered formations. (See FORMATIONS section.)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
KNOTS	pp. 84-89	1. Discuss the need and uses of selected knots. 2. Demonstrate selected knots. 3. Practice.	1. -- 2. Tie on canoe. 3. A. Instructor talks through tying knot. B. Students practice on own as instructor supervises.
LAUNCHING	pp. 108-113	1. Discuss the need for different launches. 2. Explain the parallel launch, beach launch, and boarding procedure while demonstrating. 3. Practice.	1. -- 2. A student assists the instructor in the launching and boarding demonstration. 3. A. Partners launch and board canoes using method designated by instructor. B. Paddlers land and debark using the other method, if the site permits.

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
LIFEJACKETS	pp. 65-68	1. Display as many types of personal flotation devices as possible. 2. Discuss each type as students model them. 3. Explain and demonstrate proper way to wear the type available for your class. 4. Practice.	1. -- 2. Selected students model available types and styles. 3. -- 4. All students put on the lifejacket properly and remain in it for the whole class session.
	p. 199	In conjunction with capsizing/swamping/rescue session: 1. Explain and demonstrate proper body position of a capsized victim in whitewater. 2. Practice.	1. Demonstrate floats on back with hips and feet up, pulling hands through water to propel the body feet first while keeping knees slightly bent. 2. Practice in multiple lines, moving on command from instructor.
PADDLING DOCK DRILLS	pp. 52-57	1. Discuss criteria for selecting a paddle and then have students individually select a paddle to use. 2. Using any proper kneeling position, demonstrate the selected stroke being introduced or reviewed. (continued on page 9)	1. -- 2. Use edge of swimming pool or dock (if at lake site) so that stroke can be executed in the water. (continued on page 9)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
PADDLING DOCK DRILLS (continued)		3. Practice stroke(s) A. On command from instructor (example: "catch, stroke, feather") as students' techniques are checked. B. Individually while instructor supervises.	3. A. Swimming Pool  B. Dock 
PADDLING LAND DRILLS	pp. 135-175 TEACHING HINTS: General Suggestions Stroke Analysis	1. Discuss the catch, power phase, recovery, and feathering technique while demonstrating each of them. 2. Apply the above information to each stroke as it is introduced during the unit. (continued on page 10)	1. -- 2. -- (continued on page 10)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
PADDLING LAND DRILLS (continued)		3. Conduct structured practice with class moving on command from instructor, who is performing stroke with back to the class.	3. 
PADDLING POSITIONS	pp. 114-128	1. Demonstrate, while explaining A. The two main paddling positions (1) Cruising (2) Relief B. The other two positions (1) Full upright (2) Racing 2. Practice.	1. With the canoe in the water near the bank, demonstrate from the stern position. 2. After launching, paddlers assume all four positions on command from the instructor. After initial drill, the canoeists assume either cruising or relief positions for stroke practice during the remainder of the class period.

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
PADDLE SELECTION	pp. 52-57	1. Display paddles of varying lengths/ materials. 2. Demonstrate methods of individually determining correct paddle length. A. Grip should reach chin level with tip resting on ground. B. With paddle held horizontal, curl fingers around tip and grip.	1. -- 2. All students make individual paddle selection.
**PRY	pp. 164-166	1. Explain the function of the pry stroke. 2. Explain and demonstrate proper technique. 3. Practice afloat in canoes. A. As an isolated stroke B. In combination with other strokes	1. -- 2. Demonstration may be performed A. Afloat with students on land B. Afloat with students afloat 3. Scattered formation - A. Practice in bow and stern to move end of canoe over (use both types of recovery). B. Practice in combination with the power strokes (forward and back) and sweep stroke.

**Optional; depending upon age and skill level of participants and teaching setting (lake or river)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
PUSHAWAY STROKE	pp. 145-147 PADDLING DOCK DRILLS FORMATIONS	1. Explain the function of the pushaway stroke. 2. Explain and demonstrate proper technique (include both types of recovery). 3. Practice A. As a dock drill, if deemed appropriate B. Afloat in canoes (1) As an isolated stroke (2) In combination with other strokes	1. -- 2. Demonstration may be performed - A. Afloat with students on land B. Afloat with students afloat 3. A. See PADDLING DOCK DRILLS in this section. B. Canoeists paddle in structured formations on commands from instructor; in structured formations unaided by instructor's directives; or in scattered formation. (See FORMATIONS section.)
**SCULLING	pp. 162-164 PADDLING DOCK DRILLS PADDLING LAND DRILLS FORMATIONS	1. Explain the functions of the sculling draw/pushaway. 2. Explain and demonstrate proper technique. 3. Practice - A. As a dock drill or land drill, if deemed appropriate B. Afloat in canoes (1) As an isolated stroke (2) In combination with other strokes	1. -- 2. Demonstration may be performed - A. On land with students on land B. Afloat with students on land C. Afloat with students afloat 3. A. See PADDLING DOCK DRILLS and PADDLING LAND DRILLS in this section. (continued on page 13)

**Optional; dependent upon age and skill level of participants and teaching setting (lake or river)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
SCULLING (continued)			3. B. Canoeists paddle in structured formations on commands from instructor; in structured formations unaided by instructor's directives; or in scattered formations. (See FORMATIONS section.)
SOLO PADDLING	pp. 117-123 Chapter 7	1. Demonstrate, while explaining, the location of the solo paddler slightly aft of the midship thwart. 2. Discuss and demonstrate adapting strokes used in tandem paddling to solo paddling. 3. Practice solo paddling using a variety of strokes, particularly the J Stroke.	1. With the canoe in the water near the bank, demonstrate this location of the paddler as well as review the four body positions that the paddler can assume. 2. Use a student demonstrator as the class watches from the bank while instructor calls out the stroke. 3. Scattered Formation A. Sternman solo paddles while partner "rides" in bow and serves as ballast. Paddlers exchange positions. B. Practice solo paddling without partner.

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
STATIONARY STROKES - Draw - Cross Draw - **Pushaway	pp. 157-161 FORMATIONS	1. Explain the function of the specific stationary strokes being taught. 2. Explain and demonstrate proper technique. 3. Practice afloat in canoes A. As an isolated stroke B. In combination with other strokes	1. -- 2. Demonstration may be performed - A. Afloat with students on land B. Afloat with students afloat 3. Canoeists paddle in structured formations on commands from instructor; in structured formations unaided by instructor's directives; or in scattered formation. (FORMATIONS)
STERN RUDDER	p. 156	1. Explain the function of the stern rudder. 2. Explain and demonstrate proper technique. 3. Practice moving forward on a straight course.	1. -- 2. Demonstration may be performed - A. Afloat with students on land B. Afloat with students afloat 3. Scattered formation: Bowman uses forward stroke while sternman keeps canoe on a straight course by using the stern rudder.

**Optional; dependent upon age and skill level of participants and teaching setting (lake or river)

SKILL	REFERENCE	TEACHING PROCEDURE	ACTIVITIES/FORMATIONS
SWEEP STROKES	pp. 148-153 PADDLING DOCK DRILLS PADDLING LAND DRILLS FORMATIONS	1. Explain the function of the forward and reverse sweep strokes. 2. Explain and demonstrate proper technique. 3. Practice - A. As a dock drill or land drill, if deemed appropriate B. Afloat in canoes (1) As an isolated stroke (2) In combination with other strokes	1. -- 2. Demonstration may be performed - A. On land with students on land B. Afloat with students on land 3. A. See PADDLING DOCK DRILLS and PADDLING LAND DRILLS, in this section B. Canoeists paddle in structured formations on commands from instructor, in structured formations unaided by instructor's directives; or in scattered formations. (See FORMATIONS section.)
SWIM TEST	- - -	1. Conduct at a swimming pool. 2. Pair up students in a buddy system. 3. Explain test. 4. Switch groups and repeat test.	1. -- 2. -- 3. One student from each pair jumps feet first into water and swims continuously for 5 minutes using any stroke, no floating. 4. --

FORMATIONS

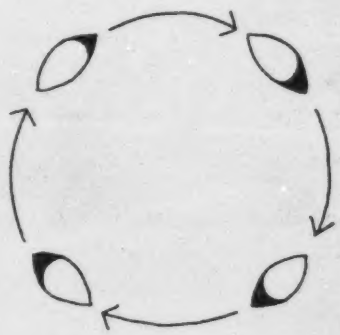
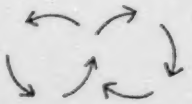
The following items should be taken into consideration when utilizing the suggested formations and activities:

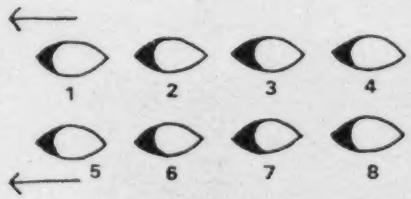
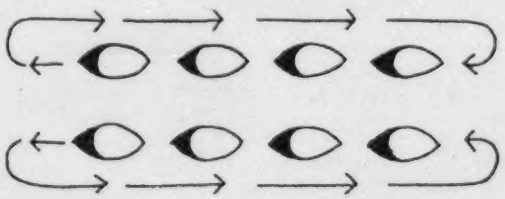
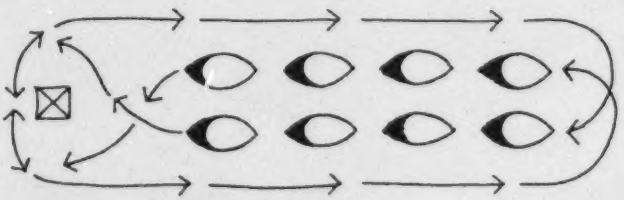
1. Each activity listed for a formation is separate and not dependent upon another activity. However, the instructor may choose to use several activities in combination so that one activity flows into another.

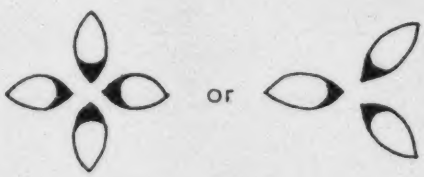
2. The instructor should designate a definite paddling side for the bowman and an opposite side for the sternman. Paddlers do not switch sides until the instructor tells them to change.

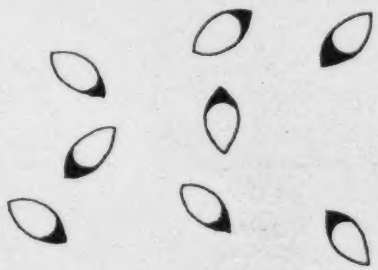
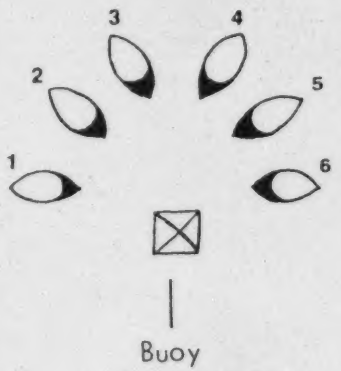
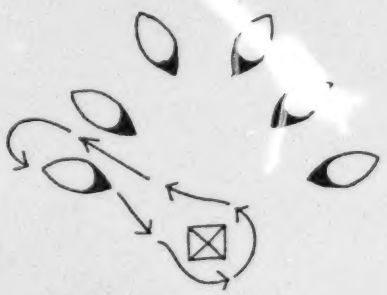
3. Almost every stroke or combination of strokes can be used in any of the formations. However, some formations are more adaptable to selected strokes depending on the number of canoes involved and/or amount and type of space available (such as a long, narrow river or a short, wide pond).

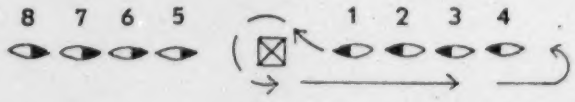
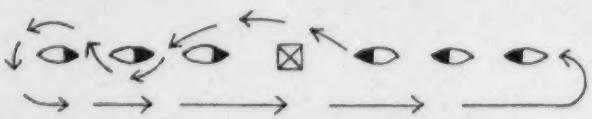
4. If conditions and space permit, buoys or markers may be helpful in providing paddlers reference points by which to determine distance.

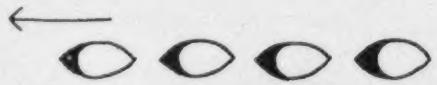
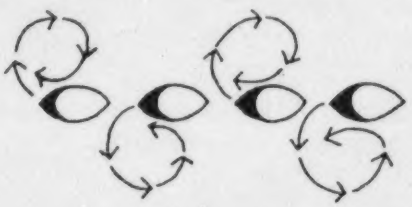
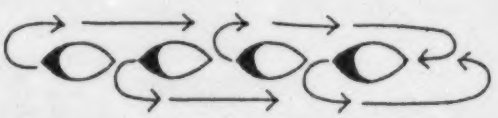
TYPE	ACTIVITIES
CIRCLE 	1. Circle clockwise. 2. Circle counterclockwise. 3. Circle clockwise, pivot 180°, continue circle counterclockwise. 4. Circle, pivot 360°, continue circle. 5. Stern first (with back stroke), repeat 1-4 above. 6. Stationary: Move broadside, in and out. 7. While circling, flow into a figure 8 formation: 

TYPE	ACTIVITIES
DOUBLE FILE  	1. Align canoes with marker (buoy, tree, pole, etc.) and advance forward in a straight line. 2. Move canoe backward. 3. While moving forward, execute right and left turns. Example: #1 turns right and #2 follows with a right turn, etc. #5 turns left and #6 follows, etc., and continue to the end of the line. Repeat.  4. From stationary position, move canoes broadside, together and then apart. 5. Alternating lines (#1, #5, #2 . . .), move canoe around buoy and return to end of opposite line. Repeat. 

TYPE	ACTIVITIES
LINES Single: Double: 	1. Move bow first, then stern first. 2. Move bow first, pivot 180° or circle, and proceed bow first. 3. Move stern first, pivot 180° or circle, and proceed stern first. 4. Stationary: Move broadside right or left. 5. Stationary: Exchange paddling positions. 6. Double lines only: Face bow to bow or stern to stern, pass through opposite line while executing 1-3 above.
PINWHEEL  or	1. All canoes forming the pinwheel rotate clockwise while bows remain touching. 2. Pinwheel rotates counterclockwise. 3. Canoes back out designated number of canoe lengths, then move forward to the center. 4. Canoes back out, pivot 180°, and return to the center stern first. 5. Canoes back out, pivot 360°, and return to the center bow first. 6. With stern to center, repeat 1 and 2 above.

TYPE	ACTIVITIES
SCATTERED 	The Scattered Formation is utilized in situations that do not require a structured formation, such as: 1. Individual review of strokes. Example: Instructor tells students to move to a "space" and work on broadside landings and turns. 2. In situations where students are given a 5- to 10-minute free paddling "warm-up" period. 3. To practice skills that may be executed in a limited space, such as: pivots, draws, pushaways, changing positions.
SEMICIRCLE 	1. All canoes move toward buoy. 2. Canoes move one at a time toward buoy, circle the marker, and return to starting position. When #1 has circled and started back, #2 begins and so on until all canoes have completed the maneuver.  3. Same maneuver as executed in 2 above. However, canoes #1 and 4 approach buoy simultaneously, circle, and return to starting position; then #2 and 5; then #3 and 6. 4. Pivot 180° and move backward with stern toward buoy. 5. Paddle toward buoy, stop, paddle backward to starting position.

TYPE	ACTIVITIES
SHUTTLE Line 1 Line 2	1. Both lines move forward, staying to the right of canoes from opposite line. 2. Alternating canoes from each line (#1, #5, #2, #6. . .) circle around buoy to the right and return to end of own line. Repeat, going to the left of the buoy.  3. Canoes in Line #1 move 2 canoe lengths apart and remain stationary. Canoes in Line #2 weave in and out of Line #1. (Start to the right of first canoe.)  Canoe back to starting position. Repeat with canoes in Line #1 weaving in and out of canoes in Line #2.

TYPE	ACTIVITIES
SINGLE FILE 	1. Move to designated location after boarding. 2. Use follow-the-leader formation. 3. Move bow first or stern first. 4. Move into other formations such as a circle or figure 8. 5. Stop, execute 180° or 360° pivot, then proceed in desired direction. 6. Stationary: Move broadside right or left. 7. All canoes peel off at same time and move in alternate clockwise and counterclockwise circles, then proceed in original direction:  8. Canoes peel off, alternating right and left to form double file; then return to end of line:  9. INDIAN RUNNING: With 3 canoes moving slowly in single file, the last canoe moves out to the side, overtakes the other canoes, and moves in the lead canoe position. This procedure continues until all canoes are back in their original positions.

TEACHING HINTS

GENERAL SUGGESTIONS

1. When giving verbal instructions, present strokes for the bowman first and then for the sternman; so when calling out a combination of two strokes, such as draw/pushaway, the first stroke is for the bowman and the second stroke is for the sternman.

2. Whenever possible, relate strokes as to how each one affects the bow of the canoe. Example:

Moves bow of canoe away from paddle	-	Forward Sweep
Moves bow of canoe toward paddle	-	Reverse Sweep J Stroke Stern Rudder

3. Make reference to the power face and the back face of the paddle when describing stroke techniques. Example: When feathering the paddle, the power face is up.

4. If a power megaphone is not available, establish a "recall" signal to bring paddlers in for additional instruction or for the conclusion of the class. Example: Two blasts on a whistle.

5. The instructor should utilize several criteria as the bases for partner selection to ensure that the same two people are not always partners. Some recommended criteria include:

   A. Individual skill level, such as pairing those possessing some skill with those possessing little or no skill at the beginning of the course.

   B. Body size or weight, since the trim of the canoe will be adversely affected by extreme differences.

   C. Sex, keeping in mind that each class member should experience paddling (both bow and stern positions) with members of both sexes.

   D. Random methods, such as drawing partners, alphabetical order, numbering off, etc. Occasionally, students should be allowed partners of their choice.

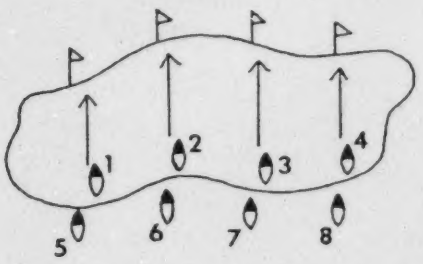
6. If possible, assign only two persons to a canoe at a time. If it is necessary to put three persons in a canoe, the third person should be seated in the center and can periodically switch with the others to be put in a paddling position. Only the persons in the bow and stern should paddle.

7. With the exception of designated classroom and swimming pool sessions, the canoeing instructions should take place at a lake or river site. The type of setting will determine organizational procedures. Some suggested arrangements are given below.

   A. Lake or Small Pond

      1. Refer to the TOPICAL PLANING GUIDE for Paddling Land Drills.

      2. Set up markers across the lake opposite the launching sites. If the distance across the lake is too great to utilize the opposite bank, buoys will need to be anchored the desired distance from the launching site.



      Launch canoes 1, 2, 3, and 4, paddle toward opposite markers, turn around, and return to starting positions.

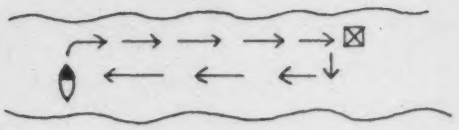
      Launch canoes 5, 6, 7, and 8 when the canoes in front are halfway back to starting point. Then proceed as above.

   B. River

      1. Paddling Land Drills are the same as for lake or small pond sites.

      2. If the river is wide enough (at least 100 feet) proceed as for lake or small pond.

      3. If the river is narrow, anchor a marker or buoy (a gallon-size plastic jug) in the river to serve as a reference point for paddlers.



4. Select formations that are suitable for long, narrow spaces. Refer to the FORMATIONS section.

8. It is recommended that a short river trip (3-5 miles) be planned for a Saturday of the second or third week of the course. County maps can be used to assist in locating the put-in and take-out points on the river. Be sure to get advance permission from property owners if put-in or take-out points are on private property!

9. If time permits, the instructor may choose to include a "field day" during the latter half of the unit. This is a day set aside for fun and games. Refer to the SKILL TESTS AND EVALUATION and the GAMES/ CONTESTS sections for ideas on activities that may be used for field day events.

SKILL ANALYSIS

In teaching any skill, an essential element of the teaching process is the instructor's ability to analyze, by isolating or pinpointing segments of the technique involved in the skill. The outcome of the instructor's analysis is transferred to the student in the form of feedback, which may be given to reinforce proper techniques or to make suggestions for correcting improper techniques. The items listed below will perhaps enhance the instructor's perceptive analysis of canoeing skills. These can become mental working tools to aid in making continuous "spot checks" of the student's techniques.

1. Lower hand is aligned with hip at the end of stroke in the forward stroke, back stroke, sweeps, and J stroke in tandem paddling.

2. Top hand is over the grip, not on the shaft.

3. Both hands and paddle are over the water when making the catch and when stroking.

4. Top hand is used to manipulate the paddle in making a recovery and/or in feathering.

5. In the forward stroke, the elbow is at approximately shoulder height when the catch is made and on through the power phase of the stroke.

6. Power face of paddle is "up" when feathering.

7. The catch is made in the direction in which the paddler wants the canoe to move.

8. Both hands exert force on the paddle during stroking (p. 137 in Canoeing).

9. The lower hand is the hand next to the paddling side; the top hand is the hand opposite the paddling side.

10. Proper paddling position is maintained. Paddlers are in one of the kneeling positions, not sitting on the seats.

COMBINATION STROKES

In tandem paddling, strokes are used in combination to achieve the desired effect on the canoe. The most typical of these combinations include the following:

STROKES	EFFECT
1. Draw/Pushaway	1. Move canoe broadside.
2. Draw/Draw	2. Pivot canoe.
3. Forward Sweep/Reverse Sweep	3. Pivot canoe.
4. Forward Stroke/J Stroke	4. Move canoe straight ahead.
5. Diagonal Draw/Forward Stroke OR Forward Stroke/Diagonal Draw	5. Gradual change of direction (toward bowman's paddle).
6. Forward Stroke/Stern Rudder OR Forward Sweep/Stern Rudder	6. Gradual change of direction (toward sternman's paddle).
7. Stationary Draw/Stern Rudder	7. Sideslip diagonally (away from sternman's paddle).
8. Stationary Cross Draw/Draw	8. Sideslip diagonally (toward sternman's paddle).

REVIEW METHODS

After skills are initially introduced, it is essential that they be reviewed to help reinforce and ensure proper learning techniques. Student interest during review sessions can be maintained through the use of a variety of review methods. In addition to the suggested methods given here, instructors should attempt to build some variety into their own methods of reviewing.

Terminology Review

List terminology on 3" x 5" index cards. Students can pair up and "quiz" each other by one calling out the term and the other identifying it by defining, describing, or by pointing it out on a canoe or paddle.

Stroke Review

1. Obstacle courses may be utilized for free paddling or informal review sessions. Refer to the SKILL TESTS AND EVALUATION section of the packet.

2. List strokes on 3" x 5" index cards. Give paddlers in each canoe a card. During free paddling sessions, the sternman calls out strokes listed on the card; they execute each until all strokes have been reviewed.

3. Utilize structured formations with the instructor calling out over the power megaphone specific strokes to be used. (Refer to the FORMATIONS section of the packet.)

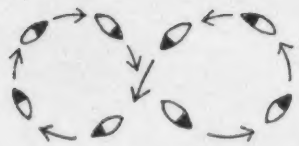
   Example: Circle formation is selected and instructor wants 4 canoes to circle clockwise with the bowman on the left side and sternman on the right side. The instructor calls out:

   1. Forward Sweep/Stern Rudder
   2. Stop
   3. Forward Sweep/Reverse Sweep

   Canoes have now pivoted 180° and are in position to circle counterclockwise.

4. Utilize structured formations with the instructor designating specific formations but not specifying the stroke to be used. (Refer to the FORMATIONS section of the packet.)

   Example: Circle formation is selected and the instructor directs 4 canoes to form a circle moving counterclockwise and the other 4 canoes to form a circle moving clockwise. The bowman is on the left side and the sternman on the right side. After the circles are moving smoothly, the instructor tells the paddlers to flow into a figure 8 formation.



This is a "problem-solving" approach to review. The instructor states the formation or maneuver (problem) and the students must select the proper stroke(s) to initiate and/or maintain the manuever (solution).

5. Outside of class, each student writes a canoeing routine (a sequence of maneuvers) utilizing all the strokes. Have students pair up for tandem paddling during review session. Partners will execute the routines each of them has prepared. The person in the stern position will "direct" his routine first. Then students change positions and go through the second routine.

Knot Review

This can take place either in a classroom (such as a rainy day session) or at the canoe teaching site. If done in the classroom, the instructor will need a supply of cord/rope lengths. If done at the canoeing site, bow and stern ropes on the canoes are used. Have bow and stern ropes removed from canoes. When students arrive, have them pair up, one attaching the bow rope and the other attaching the stern rope utilizing the bowline knot. The instructor then checks each knot. The free end of the rope can then be used to tie half hitches and the clove hitch on a thwart (these are used to tie down gear and extra paddles for river trips). Knots should be checked by the instructor.

The use of other knots is left up to the discretion of the instructor. These can be found on pp. 86-89 of Canoeing.

RAINY DAY ACTIVITIES

Inclement weather conditions do not have to mean lost instructional time. If it is necessary to retreat to a classroom setting because of rainy weather, etc., the time can be well spent by utilizing some of the suggestions given below.

1. Slides -- Instructors may want to present a series of personal slides showing various river trips they have taken. Scenic views of such experiences often serve as the catalyst for motivating stu-

dents to get involved with canoeing as a recreational or leisure time activity.

2. Films -- Three 16mm films produced by the American Red Cross are recommended in the RESOURCES section of this packet. It is suggested that the instructor preview the films before showing them to the class to become familiar with any specific information the students should focus on during showing.

3. Transparencies -- The overhead transparency masters included in this packet can be used in the following ways:

   A. To review parts of the canoe and paddle, carries, paddle positions, and tandem positions. This can be a written review by covering the lettering on the transparencies and revealing only the diagrams/figures, or an oral review.

   B. To introduce or review selected canoe rescue procedures (Canoeing, Chapter 7, pp. 176-221).

   C. To present an overview of situations which a canoeist may have to contend with in river canoeing.

4. Maps -- The uses of various types of maps and the importance of them to canoeists can be presented. Such materials include state highway maps, county maps, topographical maps, and canoeing guidebooks to local and state rivers.

5. Knots -- A quick review of knots may be used in addition to other classroom activities since this requires a very short period of time (5-10 minutes). The instructor will need to have a supply of cord/rope lengths for use in the classroom setting. The instructor designates the type of knot; all students tie the knot at the same time; and the instructor checks each student's knot.

6. Guests Lectures -- Personnel from local canoe clubs, the Sierra Clubs, state parks and wildlife departments, and the U.S. Corps of Engineers may be excellent resource persons for classroom sessions. A representative from a local canoe rental agency or outfitter shop can offer interesting and often valuable information on the selection, purchase, and care of canoeing equipment.

7. Artificial Resuscitation -- The techniques of administering artificial resuscitation can be reviewed and practiced in the classroom setting. Instructors may wish to include other selected first aid procedures that may be applicable to their individual teaching situations (such as extreme heat; poison ivy at river or lake sites; water areas with brush, stumps, and undergrowth, etc.). Refer to Canoeing, Chapter 8, pp. 222-254.

GAMES/CONTESTS

Games and contests are ideally used to "taper off" a daily instructional period. They help keep the fun and enjoyment objective before the participants. The games and contests included in this section require various levels of skill. Thus, the instructor should consider the skill level of the class when selecting an activity.

BACKWARD RACE

Two crew members. Line up canoes at starting line with the stern pointing toward the finish line. Upon signal, proceed backward to the finish line.

BROOM PADDLING CONTEST

Two crew members. This contest is conducted the same as the Forward Race except that brooms are used instead of paddles.

BUDDY-SOLO PADDLING RACE

Two crew members, each in their end of the canoe and facing each other. Canoes line up at starting line. Upon starting signal, the sternman solo-paddles forward toward the designated line. As the canoe crosses the line the canoeist who has been riding (but not paddling) begins solo-paddling forward toward the starting line. Race is completed when the paddler crosses the line.

FOLLOW-THE-LEADER

This novelty event is best done in an area where there are natural obstacles such as tree stumps, brush, and overhanging trees in the backwaters or around the shoreline of a lake or pond.

The lead canoe establishes a course in and out and around various obstacles. Three or four canoes follow the lead canoe in single file attempting to negotiate the obstacles in identical fashion. During the course of the activity, several canoes may serve as the leader.

FORWARD RACE

Two crew members. This race is on a straightaway from the starting line to the finish, emphasizing speed while keeping the canoe going straight ahead.

JUG RELAY

Shuttle relay. Each team is composed of four canoes with two crew members in each canoe. Two canoes from each team are at Point A and two canoes are at Point B (minimum distance between Points A and B should be at least 60 feet). Canoe #1 from each team at Point A is given a plastic gallon "jug."

At the starting signal, Canoe #1 from each team paddles to Point B and "hands off" the jug to a teammate in Canoe #2. Canoe #2 paddles to Point A and hands off jug to teammate in Canoe #3. Canoe #3 paddles to Point B and hands off jug to teammate in Canoe #4 who paddles across finish line at Point A.

Variation: Only three canoes may compose a team. If so, the relay will end at Point B.

KANGAROO RACE

One-person crew. Line up canoes at starting line with each crewman sitting in the stern. Upon starting signal, crewman takes a standing position on the gunwales and moves canoe forward to the finish line by using a pumping action of bending and straightening legs to bounce the canoe along. Each competitor may hold a paddle horizontally in both hands for balance. Contestants may reboard canoes after falling overboard. Paddle may not be used to paddle canoe.

Variation: Falling overboard constitutes disqualification.

RESCUE RELAY

Four to six crew members per team. All crew members except one are standing on the bank across from the canoe which is at the starting line. The individual in canoe (#1) solo paddles across the lake and picks up or "rescues" one crew member (#2). They tandem paddle back to the starting line where the first person debarks. Then #2 crew member solo paddles across to rescue #3 and they tandem paddle to the starting line where #2 debarks. The relay continues until the canoe returns to the starting line with the last rescued crew member.

Note: If the canoeing area does not permit the use of an opposite shore or bank, the crew members to be rescued can be stationed at another location on the same side and the paddlers be required to circle a designated buoy en route.

SUPER SCOOP CONTEST

This contest is designed for two canoes per heat. Each team consists of two tandem paddlers plus two crew members who ride as passengers in their opponents' canoe. Each passenger has a plastic gallon milk jug cut as a bailer. While the tandem paddlers travel a designated course around one or more buoys and return to the starting point, the scoopers are attempting to

fill the canoe with water. The passengers are not allowed to swamp the canoe by any means other than filling the canoe one scoop at a time. The winner is the canoe that crosses the finish line first in an upright position, even if filled with water. If the passengers are responsible for capsizing the canoe, their team is disqualified.

SWAMPED CANOE RACE

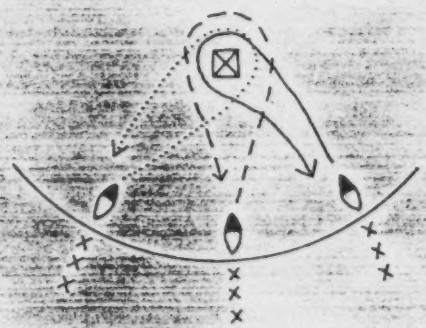
Two or three crew members seated in the bottom of the canoe, lined up at the starting line. At starting signal, crews lean sideways to fill canoe with water. When canoe is completed swamped, the crew hand-paddles the canoe to the finish line.

SWAMPING CONTEST

Three crew members, using a scattered formation and any number of canoes. Bowman and sternman maneuver canoe while the third person in the center attempts to swamp another canoe by using a gallon container to scoop water and fill opponent's canoe. The winner is the team still afloat when all others have swamped.

SWITCH-OFF RELAY

Four to six crew members per team. Two crew members (#1 and #2) tandem paddle around a buoy (same buoy used as turning point for all teams) and return to the bank where other team members are gathered. The sternman (#1) debarks and moves to the end of the line; the bowman (#2) moves back to the stern position, and #3 boards in the bow position. This crew then paddles around the buoy and upon returning #2 debarks, #3 moves to stern, and #4 enters the bow. The race continues until the last trip is completed and the canoe touches the bank with #1 in the bow and the last crewman in the stern.



WAR CANOE RACE

Four crew members, each with a paddle. Upon signal, they proceed from starting line to finish line with all four members of the crew paddling.

CANOEING ROUTINE

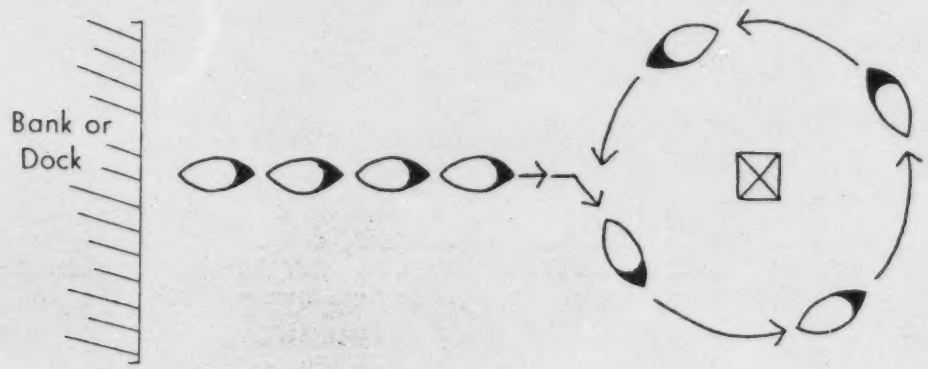
A culminating activity is designed to be challenging and fun, and perhaps even offer an element of competition. The one presented here is in the form of a canoeing routine that will demand both discipline and skill in order for the eight paddlers to work harmoniously to produce the required sequences. Instructors need to be aware of the fact that routines of this nature may prove extremely frustrating to canoeists who do not possess the necessary skill level. Therefore, discretion should be used in selecting routines as a culminating activity.

Instructions are written for the bowman to paddle on the right side and the sternman on the left side. Each pattern is designed to flow into the next one within the sequential order given below.

NOTE: In all stroke combinations, the first stroke is for the bowman and the second is for the sternman.
Example: Draw/Pushaway = Bowman/Sternman

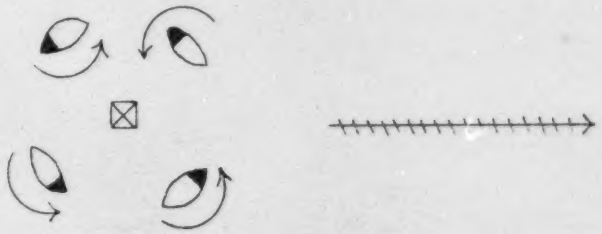
IN ALL DIAGRAMS, LINES INDICATE DIRECTION OF CANOES, NOT THE PADDLE ACTION.

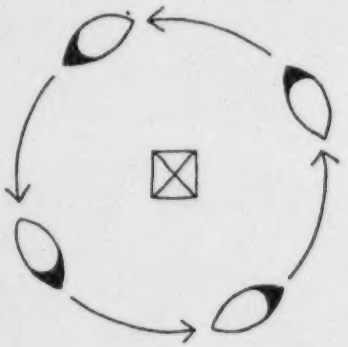
I. CIRCLE COUNTERCLOCKWISE



Forward Stroke/J Stroke Forward Sweep/Stern Rudder

II. REVERSE / CIRCLE CLOCKWISE





(180° pivot to reverse direction)

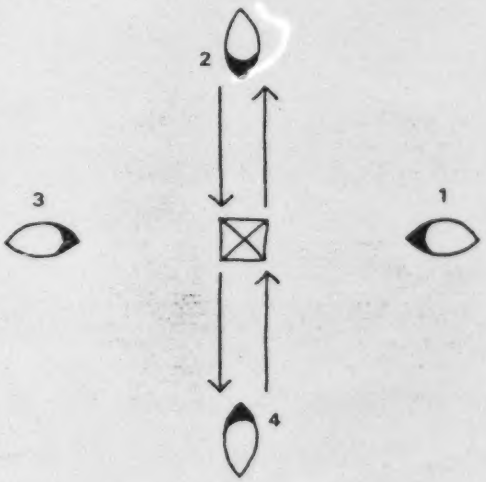
Stationary Cross Draw/Stern Rudder then Forward Sweep/Reverse Sweep

Diagonal Draw/ Forward Stroke

III. STOP . . . . . Hold position by Sculling

IV. PINWHEEL

(90° pivot with bow toward center: Reverse Sweep/Forward Sweep)



Maneuver A

a. #1 & #3 hold canoes with Sculling.

b. #2 & #4 move forward to center and then back out:

Forward Stroke/J Stroke
then Back Stroke/Back Stroke

c. #2 & #4 hold canoes with Sculling.

d. Repeat (b) with #1 & #3 going to the center.

(continued on page 3)

IV. PINWHEEL (continued)

Maneuver B

a. #1 & #3 hold with Sculling.

b. #2 & #4 pass all the way through, staying to the right of the buoy; then 180° pivot and hold:

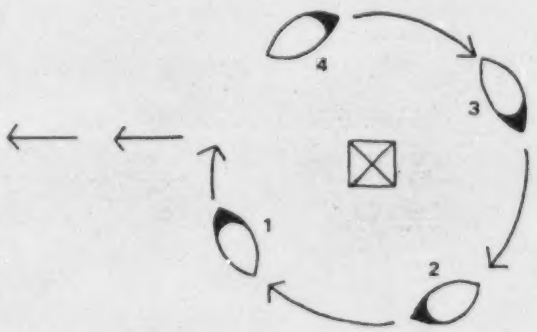
Forward Stroke/J Stroke
then Forward Sweep/Reverse Sweep

c. #2 & #4 hold canoes with Sculling.

d. Repeat (b) with #1 & #3 passing through.

V. FROM PINWHEEL TO CLOCKWISE CIRCLE

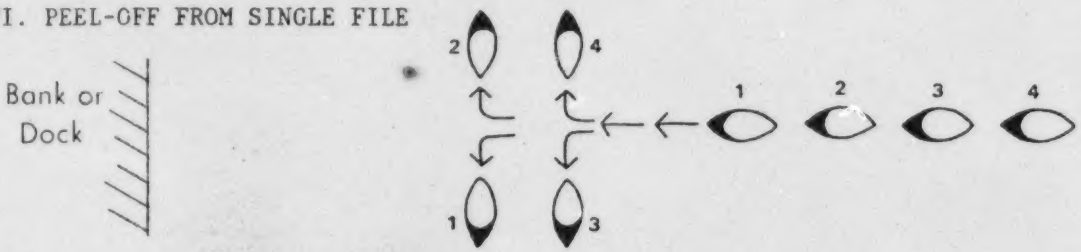
(90° pivot to clockwise circle position: Cross Draw/Pushaway)



Circle clockwise one complete revolution; then break circle with #1 leading to form a line.

Diagonal Draw/Forward Stroke
then Forward Sweep/Stern Rudder

VI. PEEL-OFF FROM SINGLE FILE



(From a moving Single File formation)

a. #2 and #4 peel off to the right for approximately two canoe lengths and then stop:

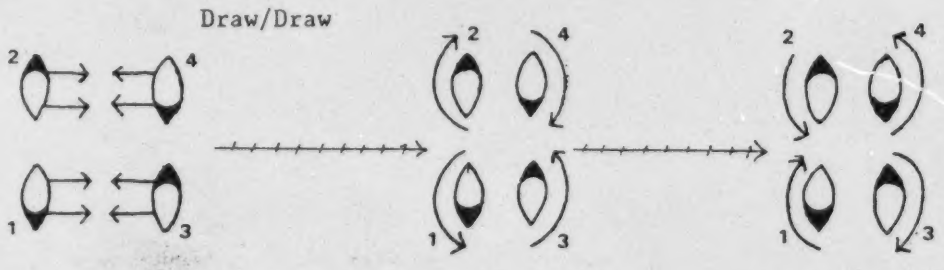
Stationary Draw/Forward Sweep

b. At the same time as above, #1 and #3 peel off to the left for approximately two canoe lengths and then stop:

Stationary Cross Draw/Stern Rudder

VII. JOIN CANOES AND PIVOT

(#3 and #4 180° pivot at the completion of Pattern VI above)



a. #2 and #4 move broadside to join canoes: Draw/Pushaway. Bowman from each canoe will then hold onto gunwale of other canoe.

b. #1 and #3 move broadside and join canoes: Pushaway/Draw. Sternman from each canoe will then hold onto gunwale of other canoe.

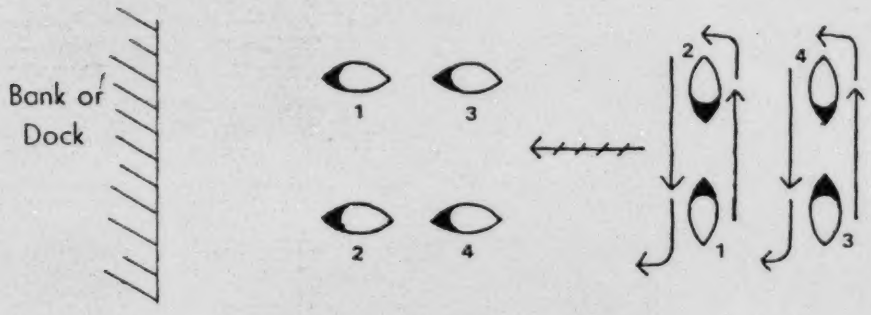
c. 360° pivot of joined canoes: Paddlers of the joined canoes (#2 and #4 are sternmen; #1 and #3 are bowmen) execute Forward Sweeps. Then Stop.

d. 360° pivot of joined canoes: Paddlers of the joined canoes execute Reverse Sweeps.

VIII. STOP . . . . . Separate Canoes using Draws and Pushaways.

IX. PASS THROUGH - TURN - AND STOP

(#1 & #2 180° so that bows are facing in the same directions as bows of #2 & #4: Draw/Draw)



a. Move canoes straight ahead, staying to the right of the canoe directly across:

Forward Stroke/J Stroke

b. As soon as canoes have passed by each other, execute a sharp turn to put canoes in position to head toward the bank:

#1 & #3: Stationary Cross Draw/Stern Rudder
then Forward Stroke/J Stroke

#2 & #4: Stationary Draw/Forward Sweep
then Forward Stroke/J Stroke

c. STOP and hold position when desired distance from the bank or dock is reached.

SKILL TESTS AND EVALUATION

Selection of evaluation techniques and skill tests should be based on age and skill level of participants, type of teaching setting (lake, pond, river), and the anticipated use of the test/evaluation results. The skill test situations included in this section may also be set up for practice sessions, fun activities, or field day events.

NOTE: Instructions denote tandem paddlers; however, the same skill tests may be used to evaluate solo paddling.

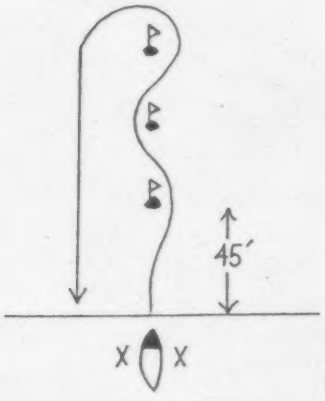
1. Refer to "Review Methods" within the TEACHING HINTS section as any of these review methods can be utilized for the evaluation of canoeing terminology and skills.

2. Refer to "Skill Analysis" within the TEACHING HINTS section for stroke analysis tips. Evaluation needs to be a continuous process that goes on daily and should not be limited just to objective scores from a skill test.

3. Canoe Sprint

   The area used for this timed test should be at least 50 yards long, if possible. Tandem paddlers travel the length of the course, circle a buoy, and paddle across the starting line. The lapsed time is recorded for the sternman. The paddlers change positions in the canoe, and, after a brief rest, the straightaway course is paddled again. Since the lapsed time is always recorded for the sternman, different grouping of partners should be utilized on different test days. See Item #5 under "General Suggestions" within the TEACHING HINTS section for partner selection ideas.

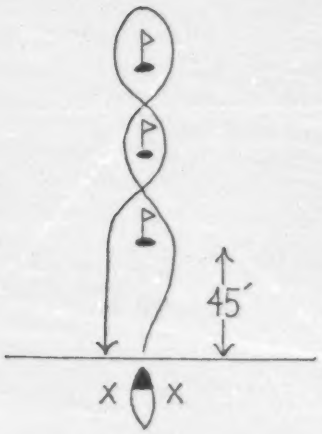
4. Figure 8 Obstacle Test



This event is timed. Three buoys are placed in a straight line approximately 30 feet apart. Tandem paddlers travel down the course in a figure 8 pattern and return straightaway. Time begins with the partners and the canoe on the bank ready to launch, and ends when the canoe and both padders are again on the bank after the course has been run. The lapsed time is recorded for the sternman.

Note: For efficiency in timing, the next pair of paddlers can be

started when the preceding canoe begins the straightaway.



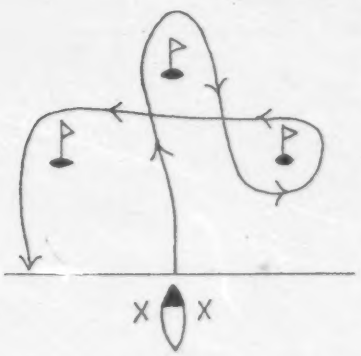
During obstacle course tests, it is permissible for the canoeists to switch paddling sides, as long as they paddle on opposite sides.

Alternate Method:

Tandem paddlers travel down the course and return in a figure 8 pattern. The next pair of paddlers may not start until the preceding canoe has negotiated the final buoy. Timing and starting procedures are the same as listed above.

Note: This pattern requires more time than the one above, but can be used if the class is small and there is sufficient time.

5. Triangle Obstacle Course



This event is timed. Three buoys are placed approximately 60 feet apart to form a triangle. Tandem paddlers run the course as diagrammed. Time begins with the partners and the canoe on the bank ready to launch, and ends when the canoe and paddlers are again on the bank after the course has been run. The lapsed time is recorded for the sternman.

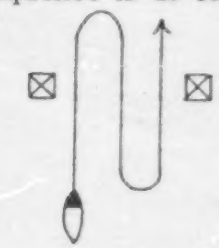
During obstacle course tests, it is permissible for the canoeists to switch paddling sides, as long as they paddle on opposites sides.

6. The English Gate Test

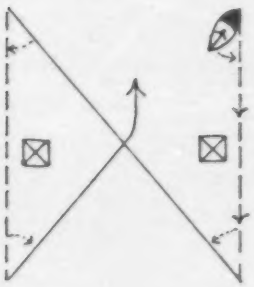
The English Gate, called the wiggle test by the English kayakers who devised it but known in this country as the English Gate, is a sequence consisting of four symmetrical phases which also may be run individually.

The gate is generally constructed from poles suspended on an overhead wire. However, buoys used in place of the suspended poles prove satisfactory. The buoys should be spaced 4-4½ feet apart.

The English Gate is an instructional and evaluative tool and may be used effectively with beginning open canoe paddlers after the basic skills have been learnerd. Only Phases One and Two are presented here since the degree of difficulty of these two phases corresponds to the level of learning of the beginner. Phases Three and Four are recommended for more advanced paddlers. The lapsed time is recorded for the stern paddler, with no penalty given for touching the gate (buoy). The course may be run tandem or solo. The sequence is as follows:



Phase 1 -- Forward through the gate, a right turn, forward through again, a left turn, and forward again through the gate.



Phase 2 -- Reverse (backward) outside on the right, roll to left, forward through, reverse outside on the left, roll to the right, and forward through the gate.

SKILLS CHECKSHEET

NAME	STROKES										MISCELLANEOUS SKILLS					SKILL TESTS		
								Others										
	Forward Stroke		Sweeps	Draws	Pushaway	Stern Rudder	J Stroke				Knots	Launching and Landing	Carries	Capsizing Techniques	Changing Positions			

CANOEING EXAM

I. MATCHING:

____ 1. Used as a relief position in calm water

____ 2. Two people paddling together

____ 3. Kneeling on both knees and leaning on forward part of seat

____ 4. One person paddling alone

____ 5. Kneeling on one knee and leaning on forward part of seat

KEY:

A. Cruising Position

B. Tandem

C. Seated Position

D. Relief Position

E. Solo

F. High Kneeling Position

II. MATCHING (Parts of Canoe):

____ 6. Bow

____ 7. Stern

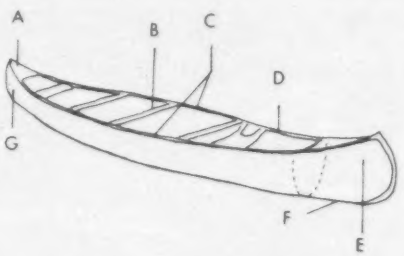
____ 8. Gunwale

____ 9. Thwart

____10. Keel

____11. Beam

____12. Deck

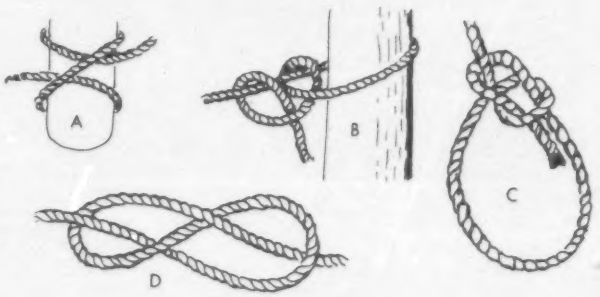


III. MATCHING (Knots):

____13. Clove Hitch

____14. Bowline

____15. Half Hitches



IV. MULTIPLE CHOICE:

____ 1. When tandem paddlers use the draw on opposite sides, the canoe (A = moves broadside) or (B = pivot turns).

____ 2. When tandem paddlers use the draw and the pushover strokes on opposite sides, the canoe (A = moves broadside) or (B = pivot turns).

____ 3. The stationary draw stroke is used to move the bow of the canoe sharply (A = toward) or (B = away from) the paddling side.

____ 4. The stern rudder moves the stern end of the canoe (A = toward) or (B = away from) the paddling side.

____ 5. The stern rudder moves the bow end of the canoe (A = toward) or (B = away from) the paddling side.

____ 6. The action of the J stroke executed on the left side corrects the tendency of the canoe to travel to the (A = right) (B = left).

____ 7. A knot that is useful for tying gear to a thwart is a (A = clove hitch) or (B = square knot).

____ 8. A knot for forming a loop that won't slip is called the (A = sheet bend) or (B = bowline).

____ 9. Carrying a canoe and its supplies around a river obstruction or overland between two waterways is called (A = lining) or (B = portaging).

____10. The fore-and-aft angle in which a canoe rests or moves on the water is called (A = tack) or (B = trim).

V. TRUE-FALSE (Circle "T" or "F"):

T F 1. The first consideration if a capsize does occur is that of the safety of people in the water.

T F 2. In the event of a capsize in swift water, the victim should ride on his back, feet downstream and at the surface.

T F 3. In boarding a canoe for tandem paddling, the sternman usually boards first from a dock or bank.

T F 4. Lifejackets are lifesaving equipment and can also be used as kneeling pads.

T F 5. Paddlers should not shift paddling sides indiscriminately.

T F 6. If the water is warm, shoes are optional when canoeing.

T F 7. In the conventional J stroke, the thumb on the top hand turns down and the paddle is given a small power hook.

T F 8. The paddle should be close to vertical as viewed from behind for the bow stroke.

T F 9. Feathering is a techinque used in a recovery of the paddler under water.

T F 10. Bow and stern lines should have stopper knots in the free ends to prevent raveling.

T F 11. Paddlers should learn to do all the strokes on either side so that they can switch periodically for a rest.

T F 12. When the channel becomes narrow the bowman steers his end of the canoe rather than allow the sternman to do all of the steering.

T F 13. The canoe-over-canoe rescue of a swamped canoe is a technique used on rivers.

T F 14. Since aluminum canoes attract lightning they should not be used for shelter in an electrical storm.

T F 15. The common term for PFD among canoeists is lifejacket.

REFERENCE INFORMATION FOR OVERHEAD TRANSPARENCY MASTERS

Transparencies

#1 -- CANOE AND PADDLE NOMENCLATURE
(Canoeing text, Chapters 2 and 3)

#2 -- 4-MAN CANOE CARRY
#3 -- 3-MAN CANOE CARRY
#4 -- 2-MAN CANOE CARRY
#5 -- 2 MAN CANOE CARRY
(Chapter 4)

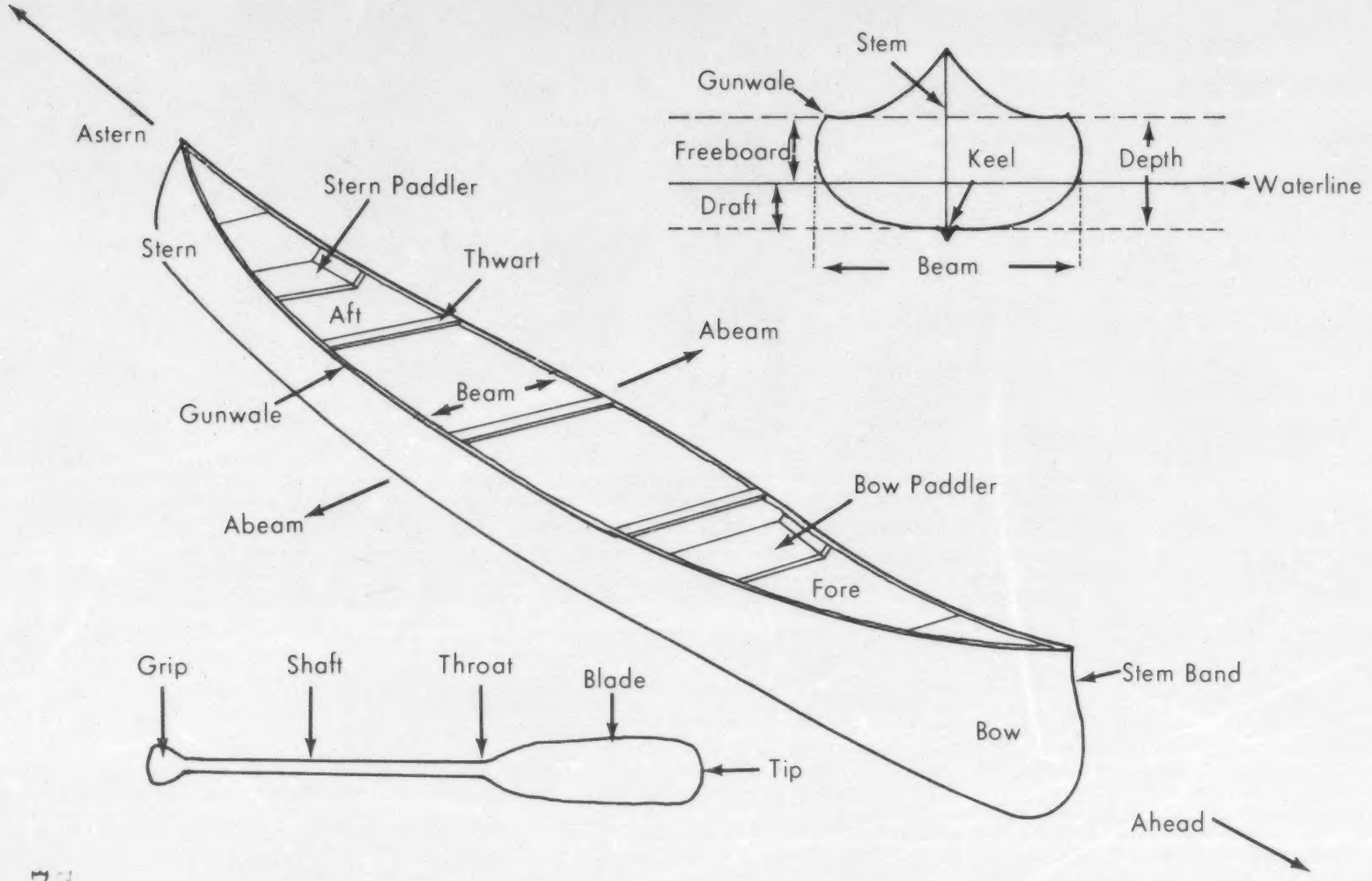
#6 -- PADDLER POSITION: CRUISING
#7 -- PADDLER POSITION: RELIEF
#8 -- PADDLER POSITION: FULL UPRIGHT
#9 -- PADDLER POSITION: RACING (HIGH KNEELING)
(Chapter 5)

#10 -- RESCUE: CANOE OVER CANOE (FIG. 1)
#11 -- RESCUE: CANOE OVER CANOE (FIG. 2)
#12 -- RESCUE: BUDDY ASSISTANCE
#13 -- REBOARDING FROM DEEP WATER
#14 -- HAND-PADDLING A SWAMPED CANOE
(Chapter 7)

#15 -- READING FAST WATER
#16 -- CURRENT IN SHARP BENDS
#17 -- MANEUVERING IN RAPIDS (FIG. 1)
Maneuvering in rapids is a matter of teamwork. As the canoe approaches the "boulder garden," the bowman reacts and pulls the bow to the left in a draw stroke.
#18 -- MANEUVERING IN RAPIDS (FIG. 2)
#19 -- MANEUVERING IN RAPIDS (FIG. 3)
The sternman, who cannot see the course but can see his partner's actions, uses his pry to push the stern to the left, lining up the canoe with the current.
#20 -- MANEUVERING IN RAPIDS (FIG. 4)
As the canoers pass through the channel, the bowman is already looking ahead to the next chute even as the sternman finishes up his duties.

#21 -- RIVER SITUATION: RIVER CROSS SECTION
#22 -- RIVER SITUATION: A HYDRAULIC
(Chapter 10)

CANOE AND PADDLE NOMENCLATURE



77

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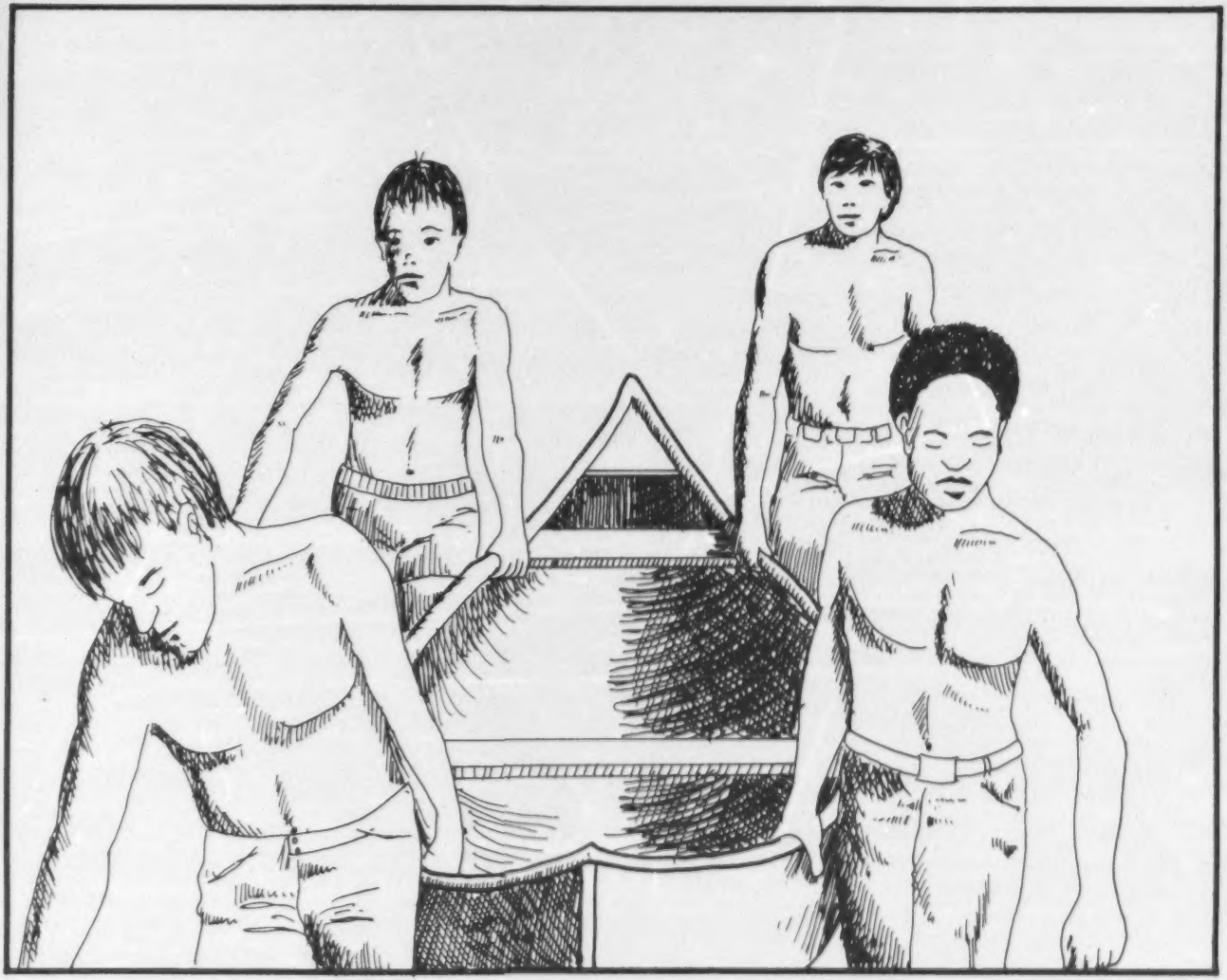
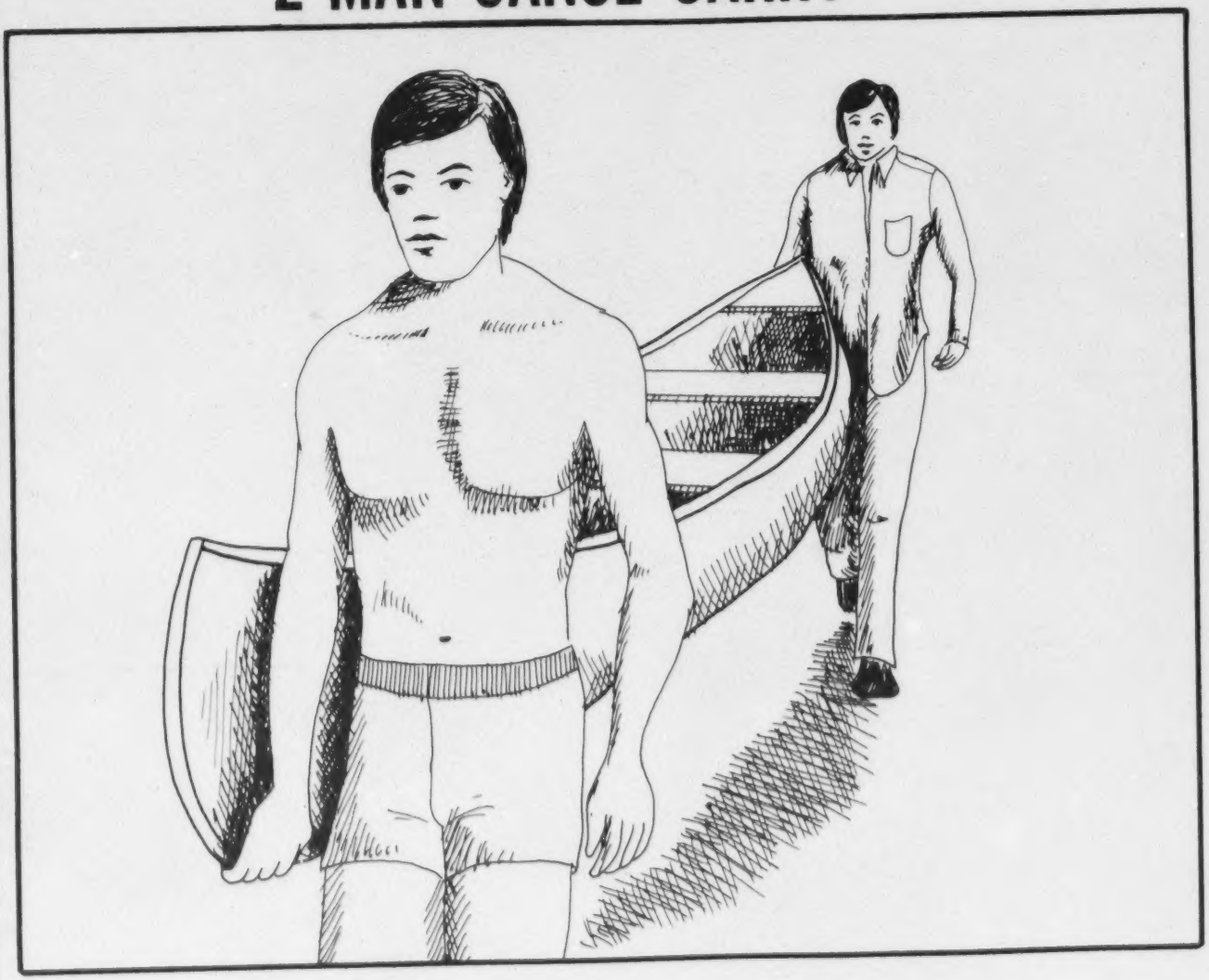
4-MAN CANOE CARRY

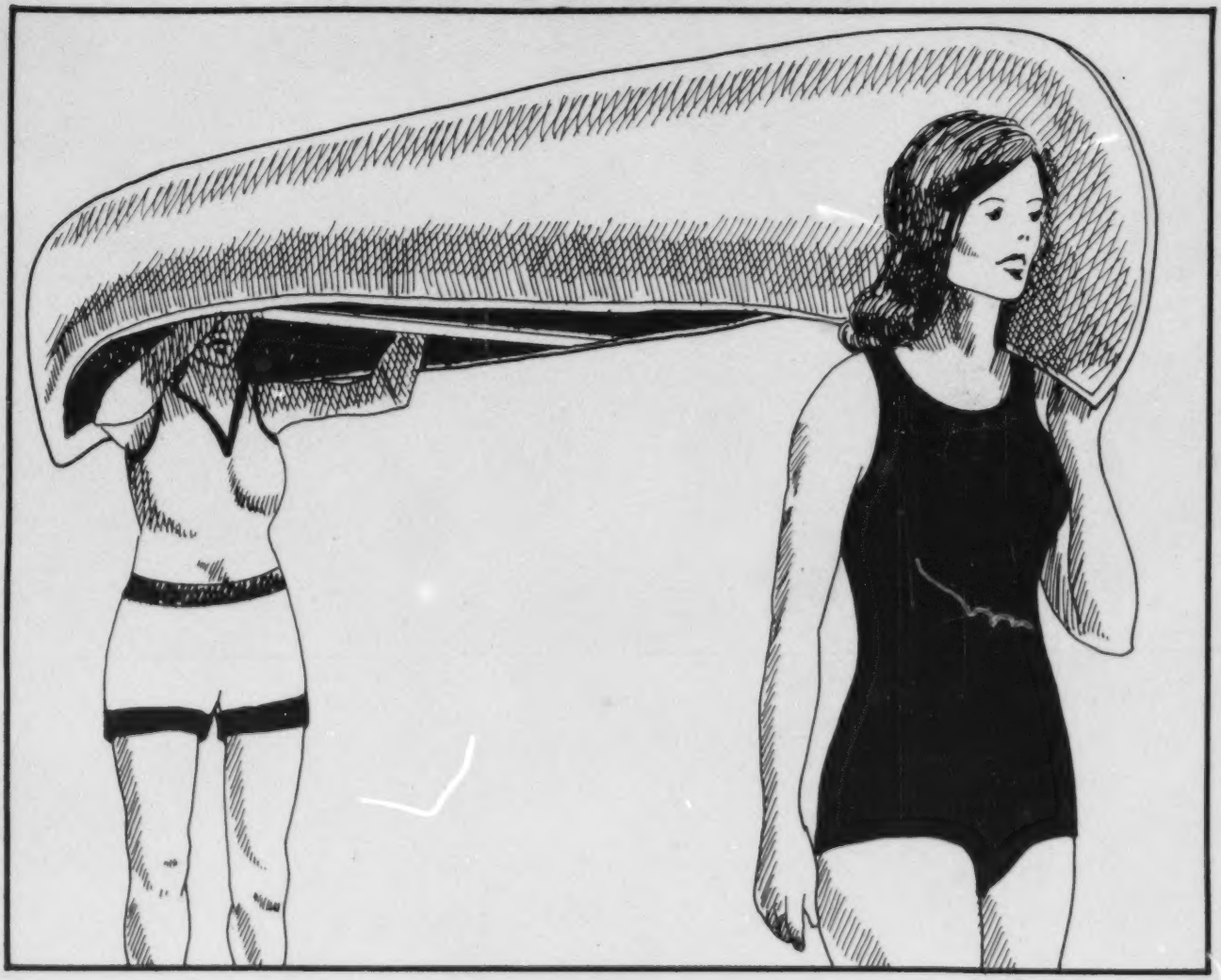


3-MAN CANOE CARRY

2-MAN CANOE CARRY

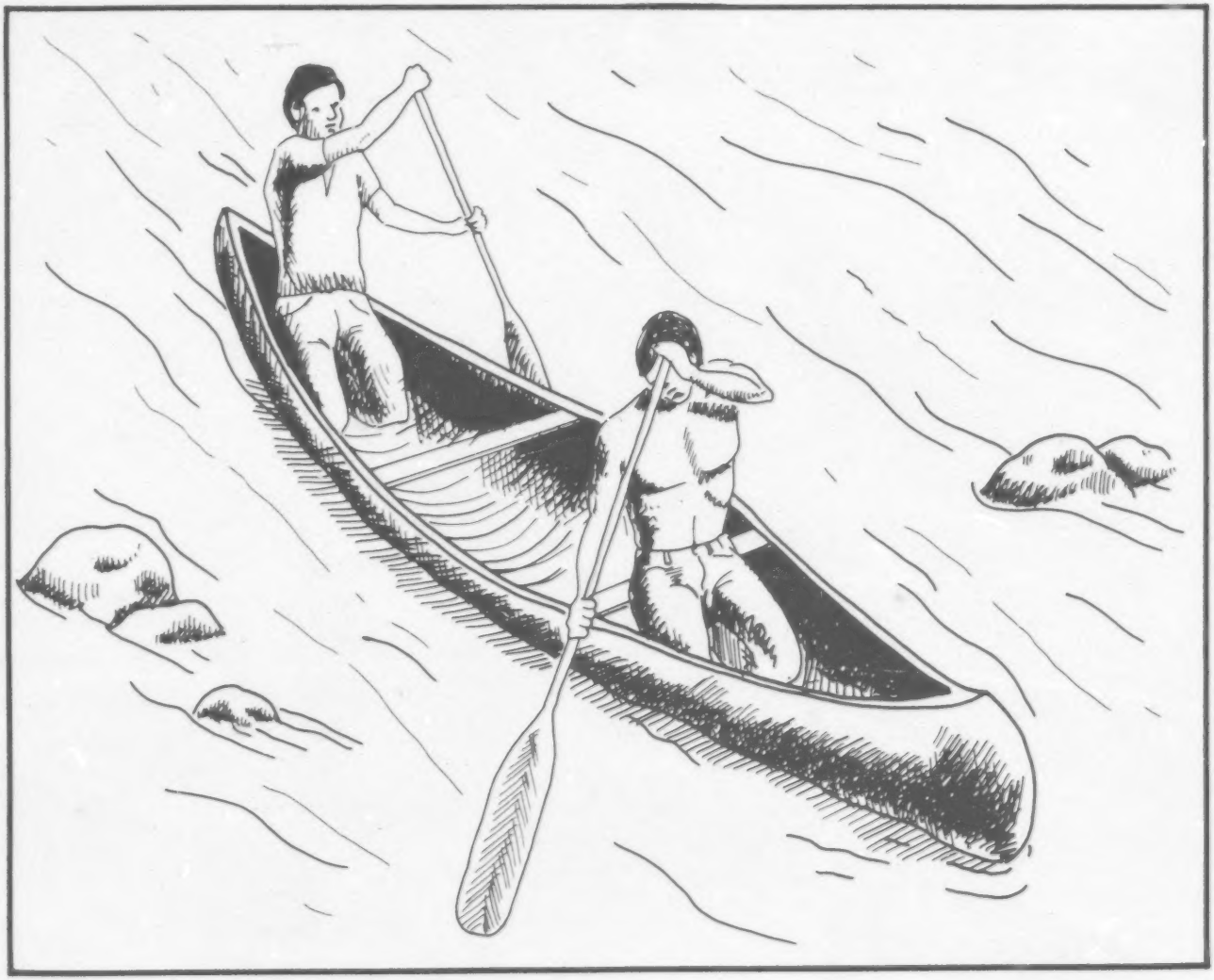


2-MAN CANOE CARRY



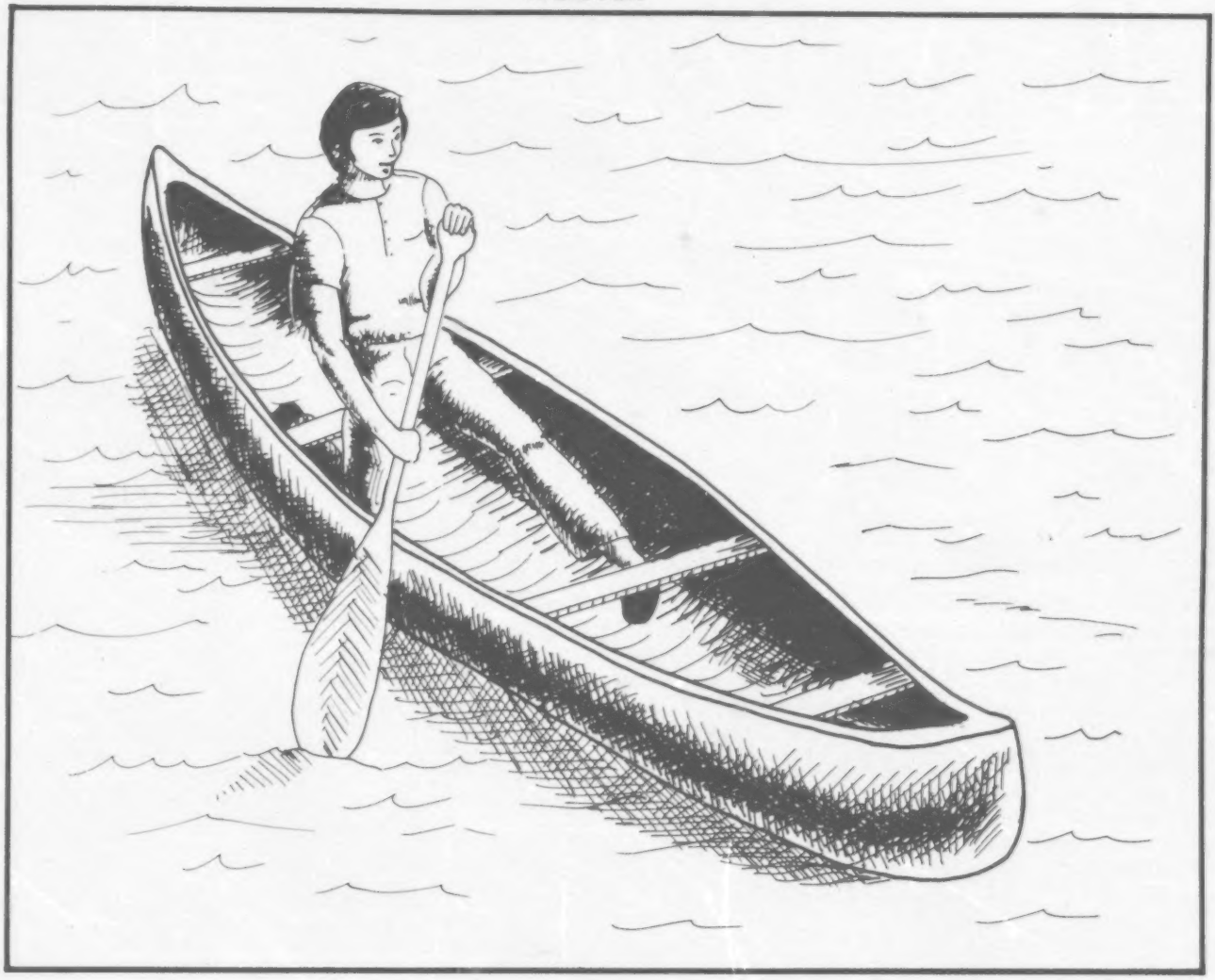
PADDLER POSITION

CRUISING



PADDLER POSITION

RELIEF

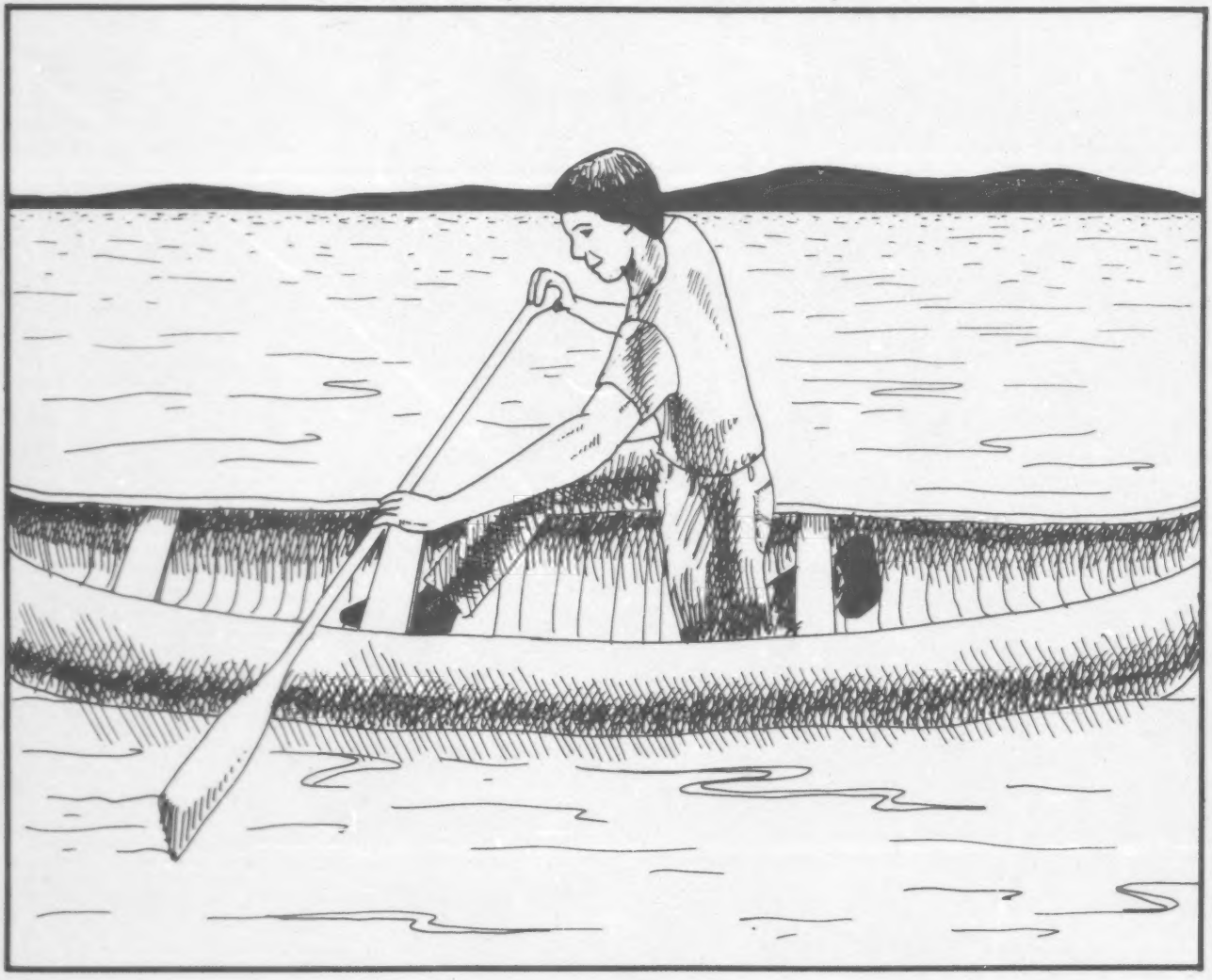


PADDLER POSITION

FULL UPRIGHT

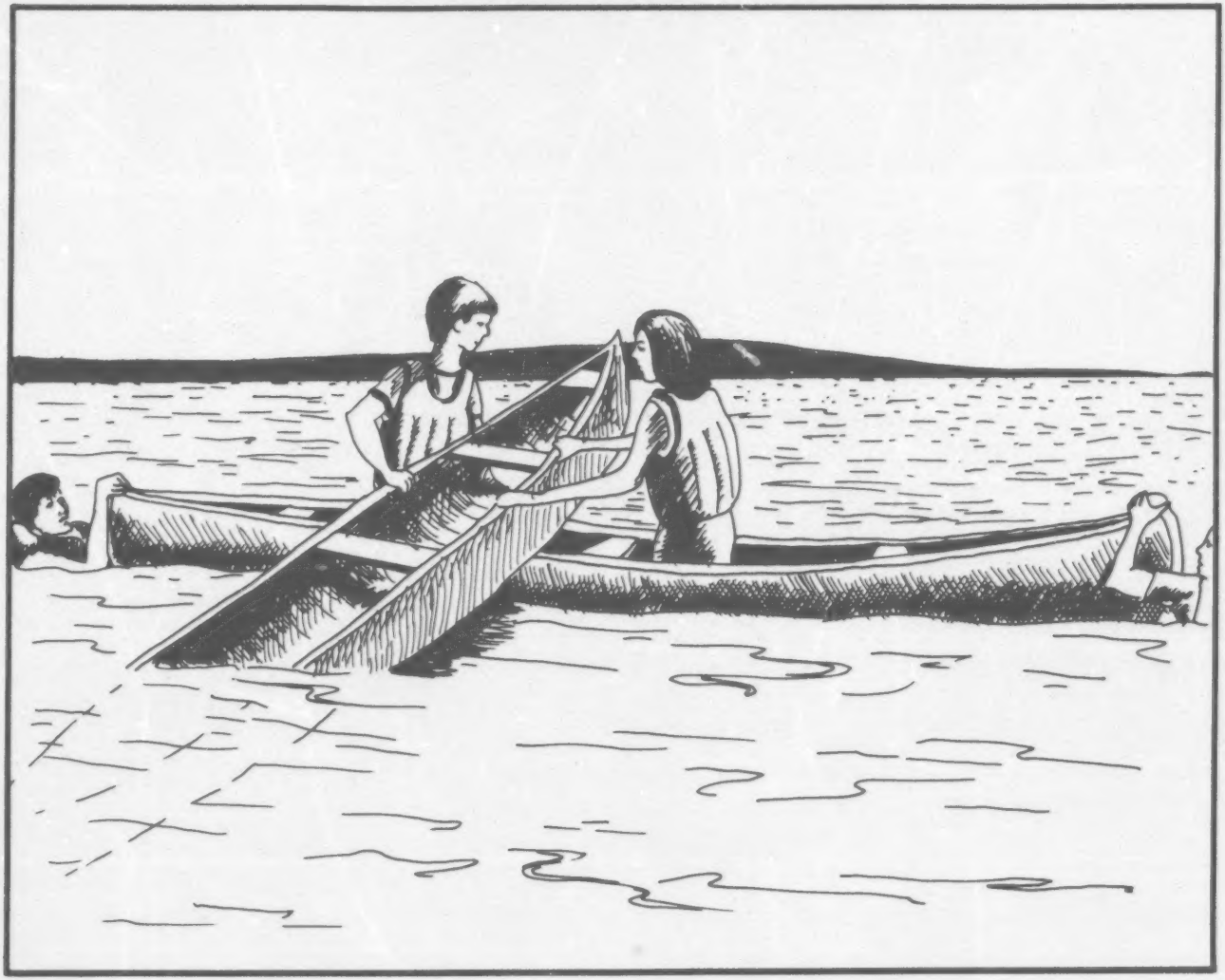
PADDLER POSITION

RACING (HIGH KNEELING)



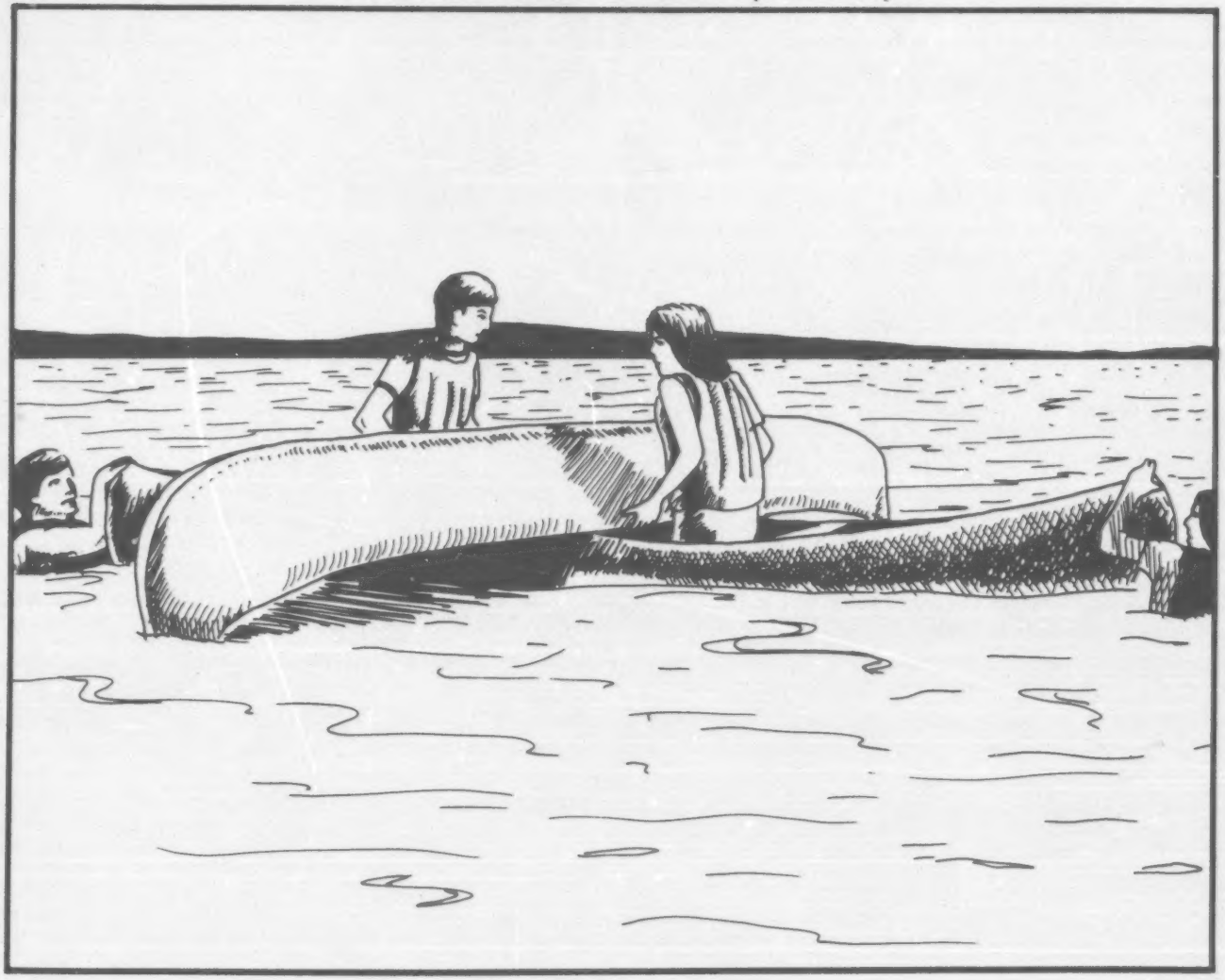
RESCUE

CANOE OVER CANOE (FIG. 1)



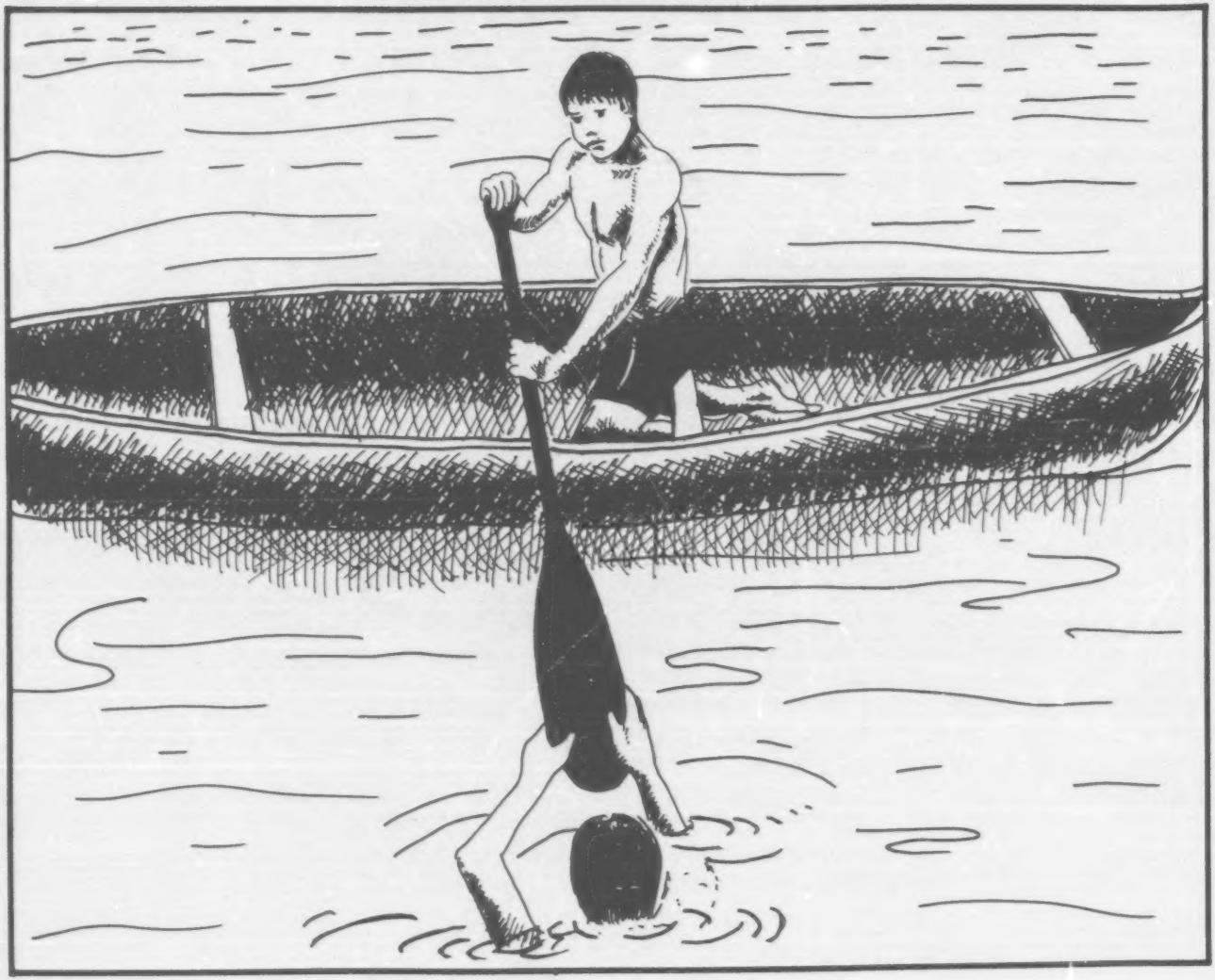
RESCUE

CANOE OVER CANOE (FIG. 2)

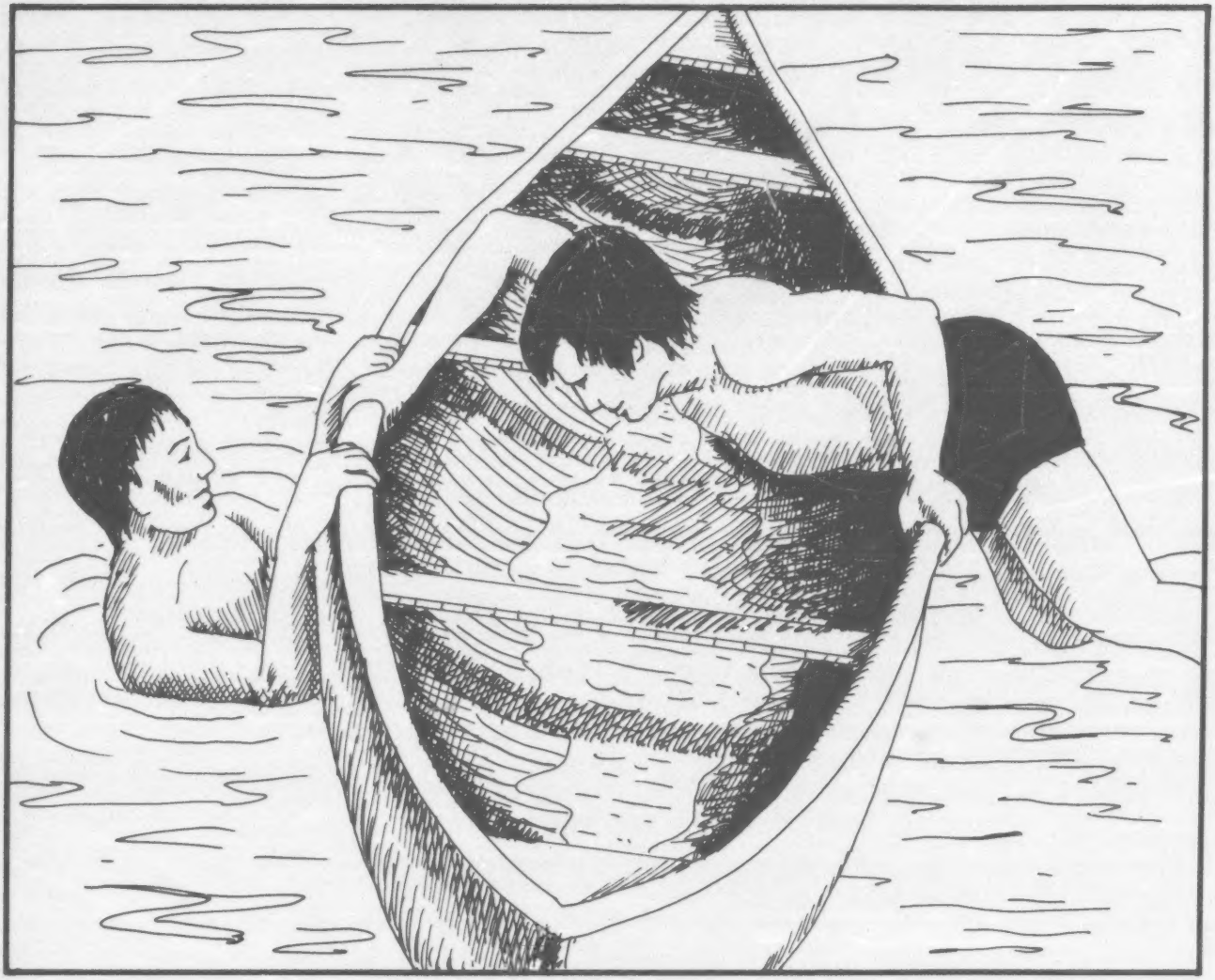


RESCUE

BUDDY ASSISTANCE

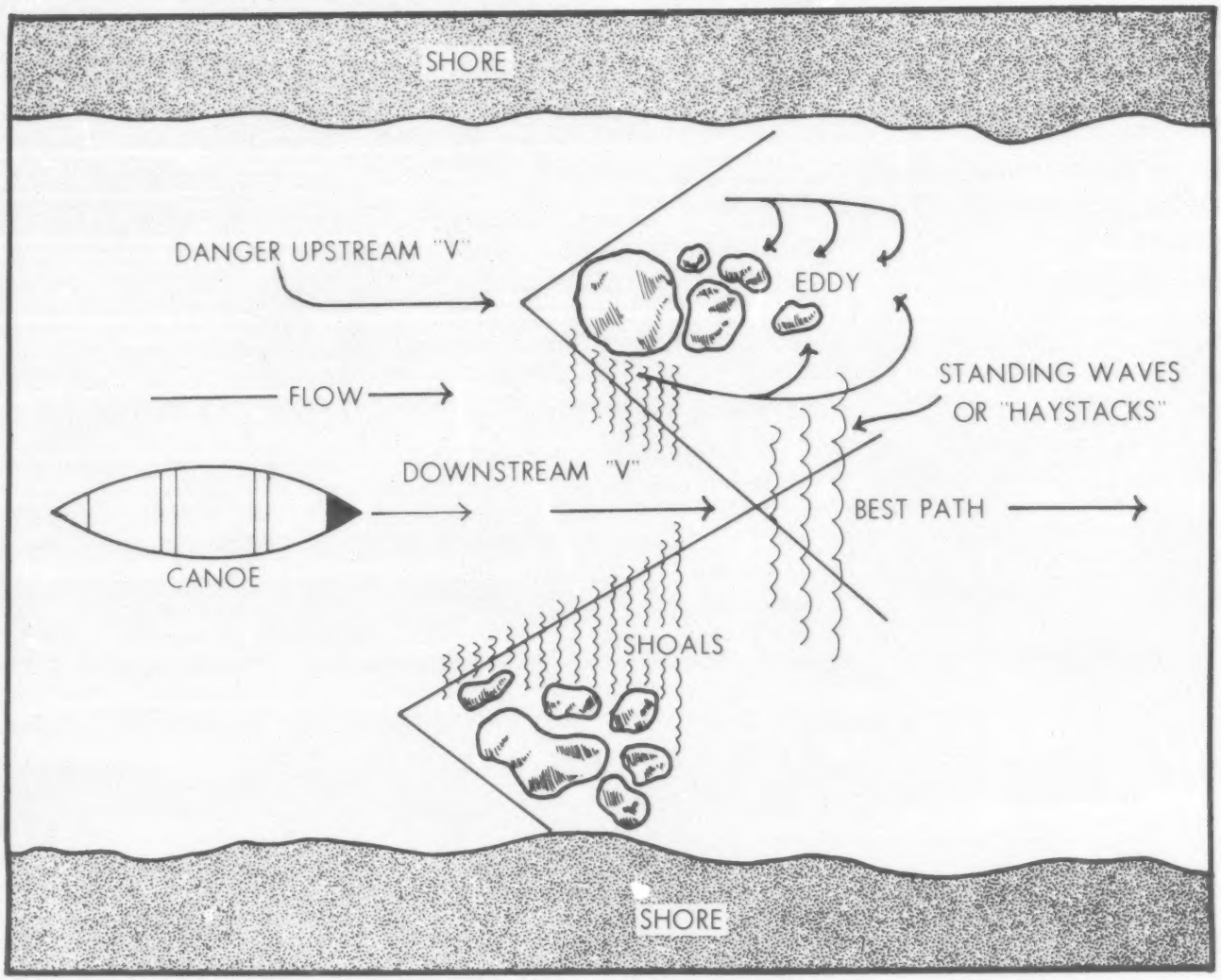


REBOARDING FROM DEEP WATER

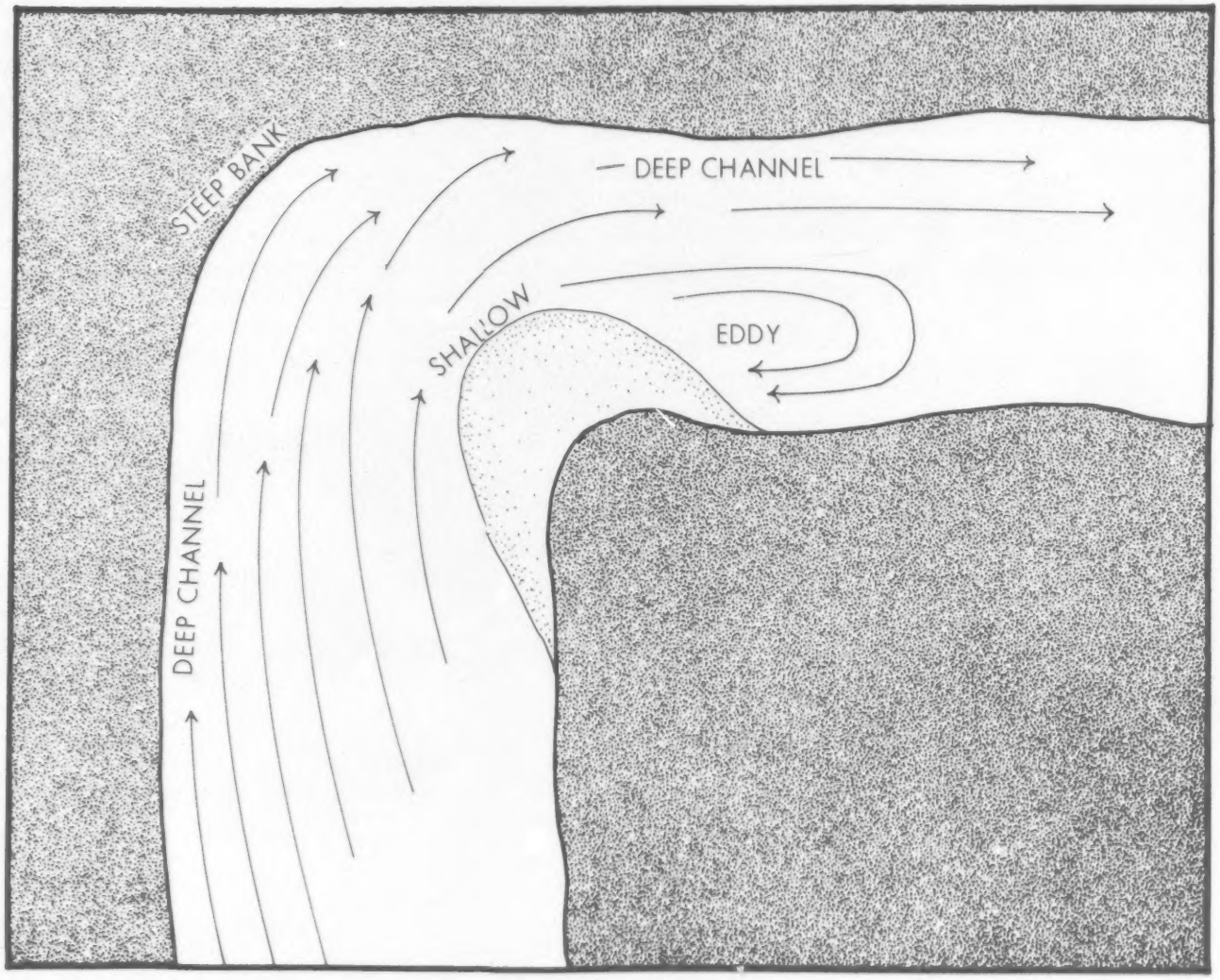


HAND-PADDLING A SWAMPED CANOE

READING FAST WATER

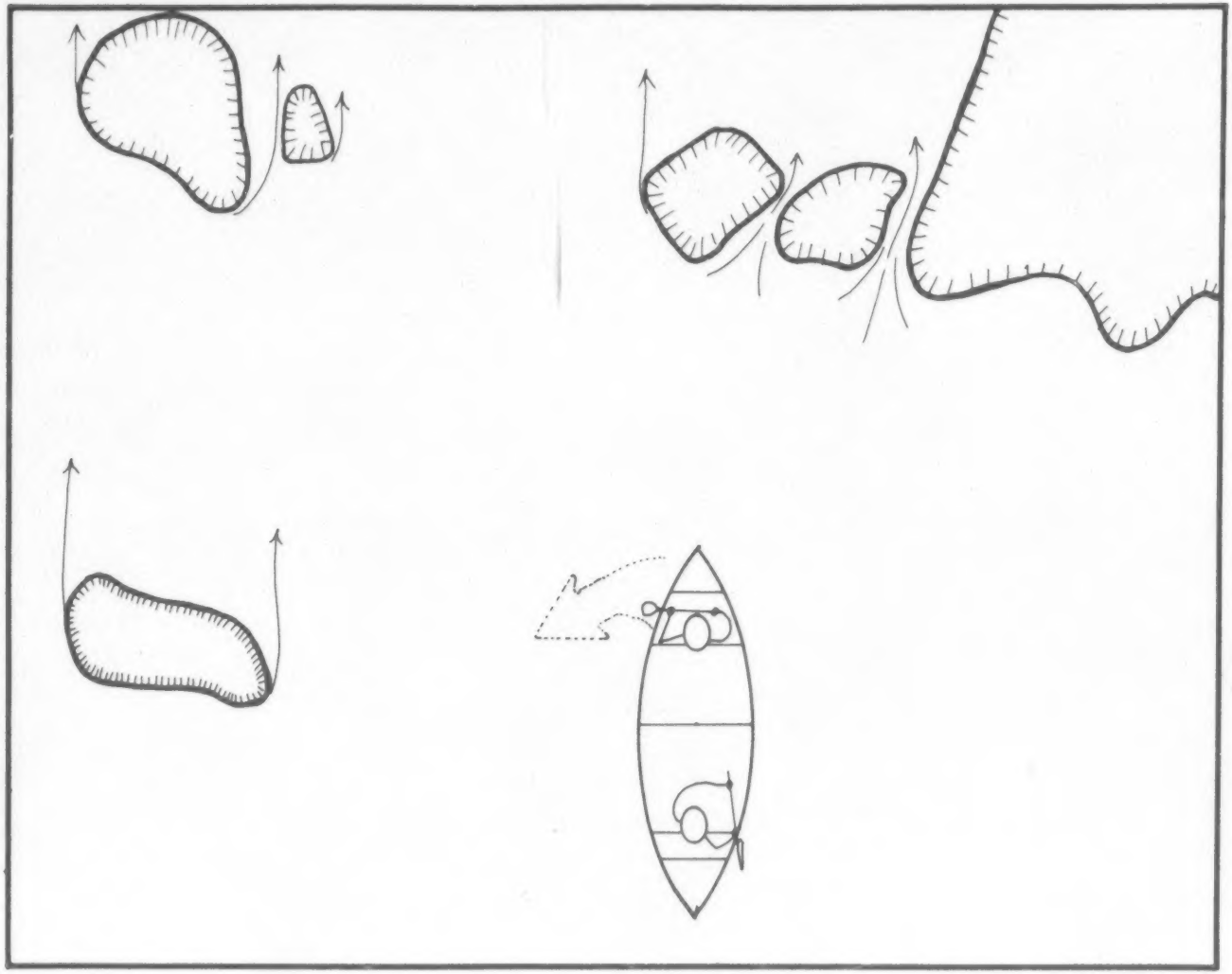


CURRENT IN SHARP BENDS



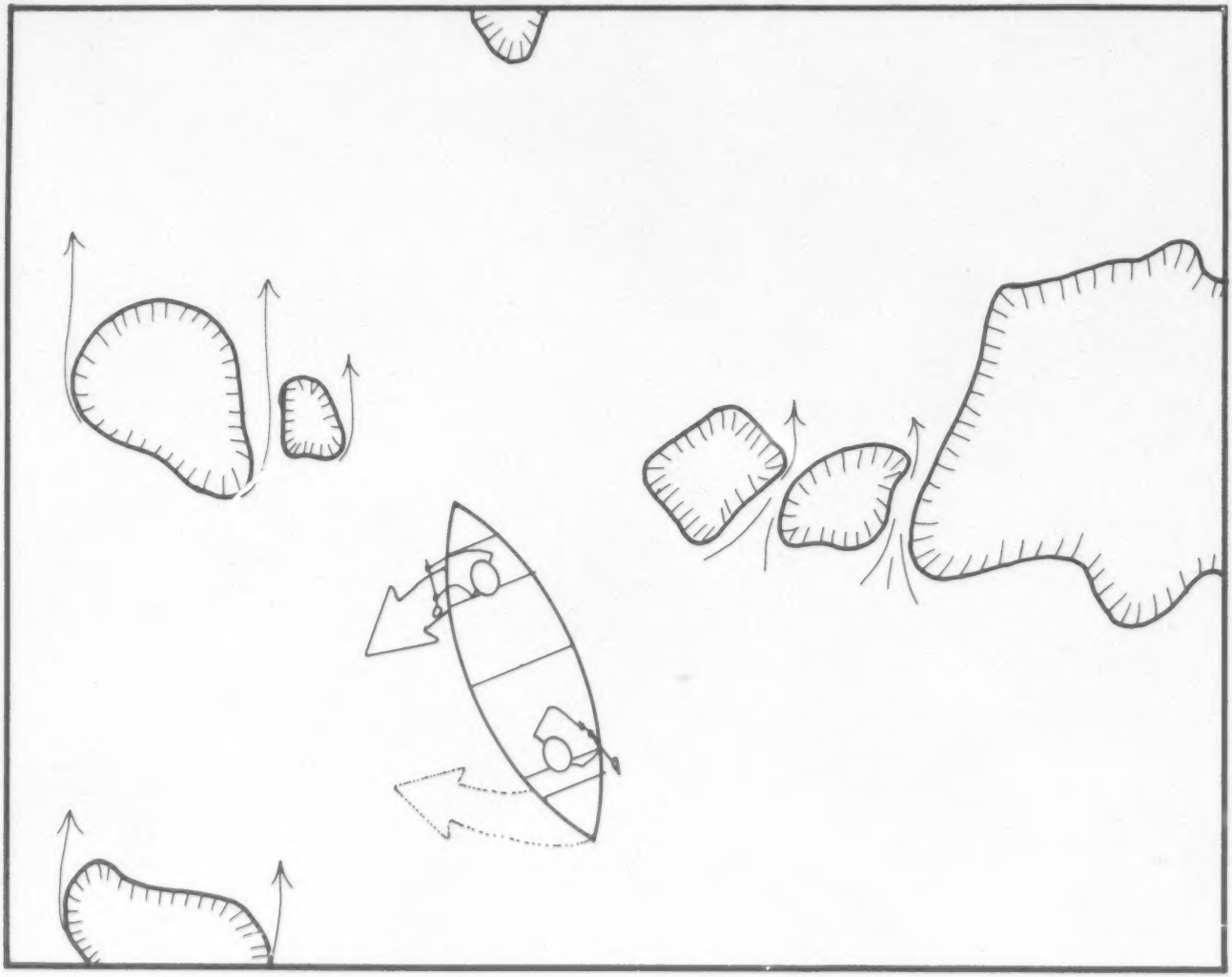
MANEUVERING IN RAPIDS

(FIGURE 1)



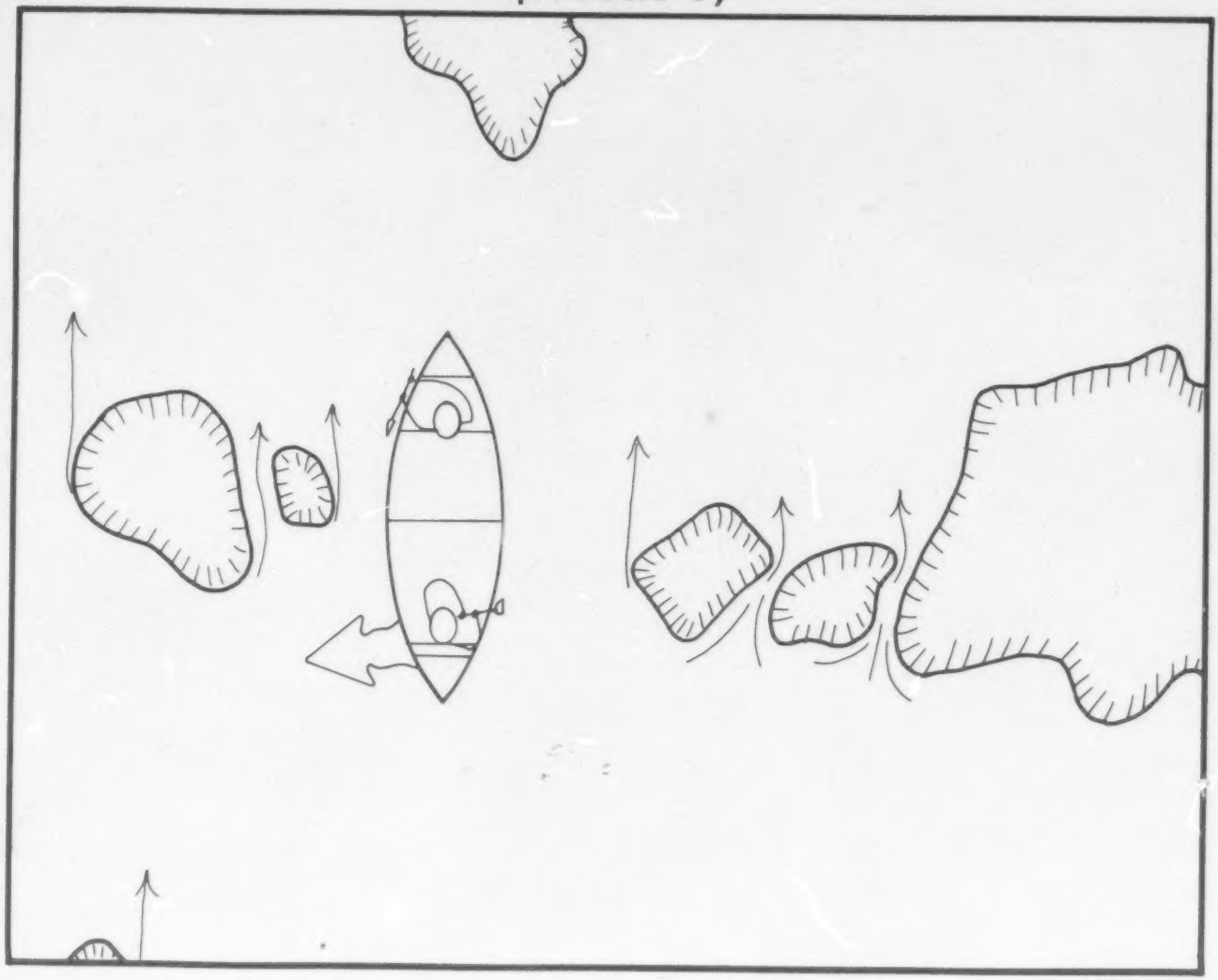
MANEUVERING IN RAPIDS

(FIGURE 2)



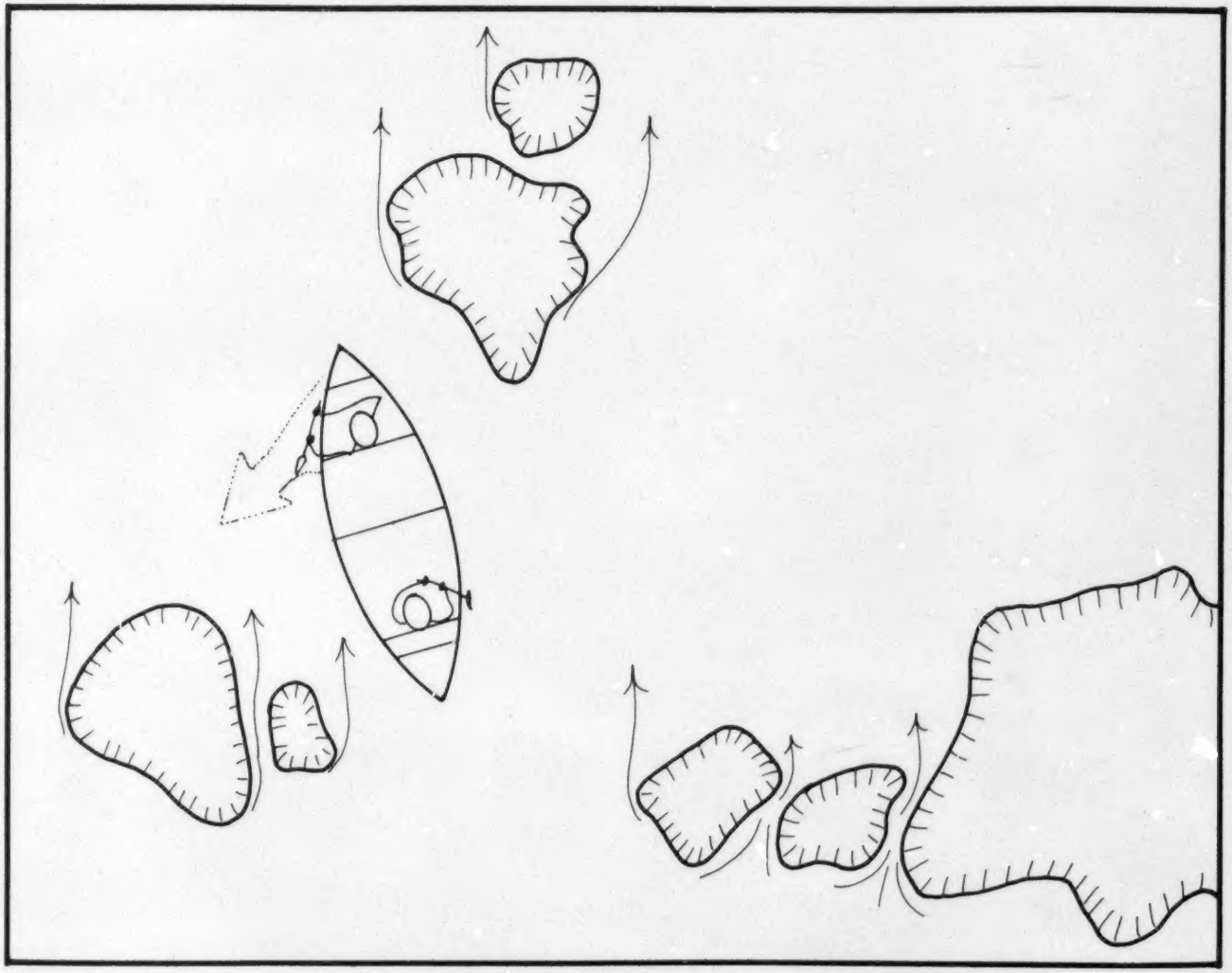
MANEUVERING IN RAPIDS

(FIGURE 3)



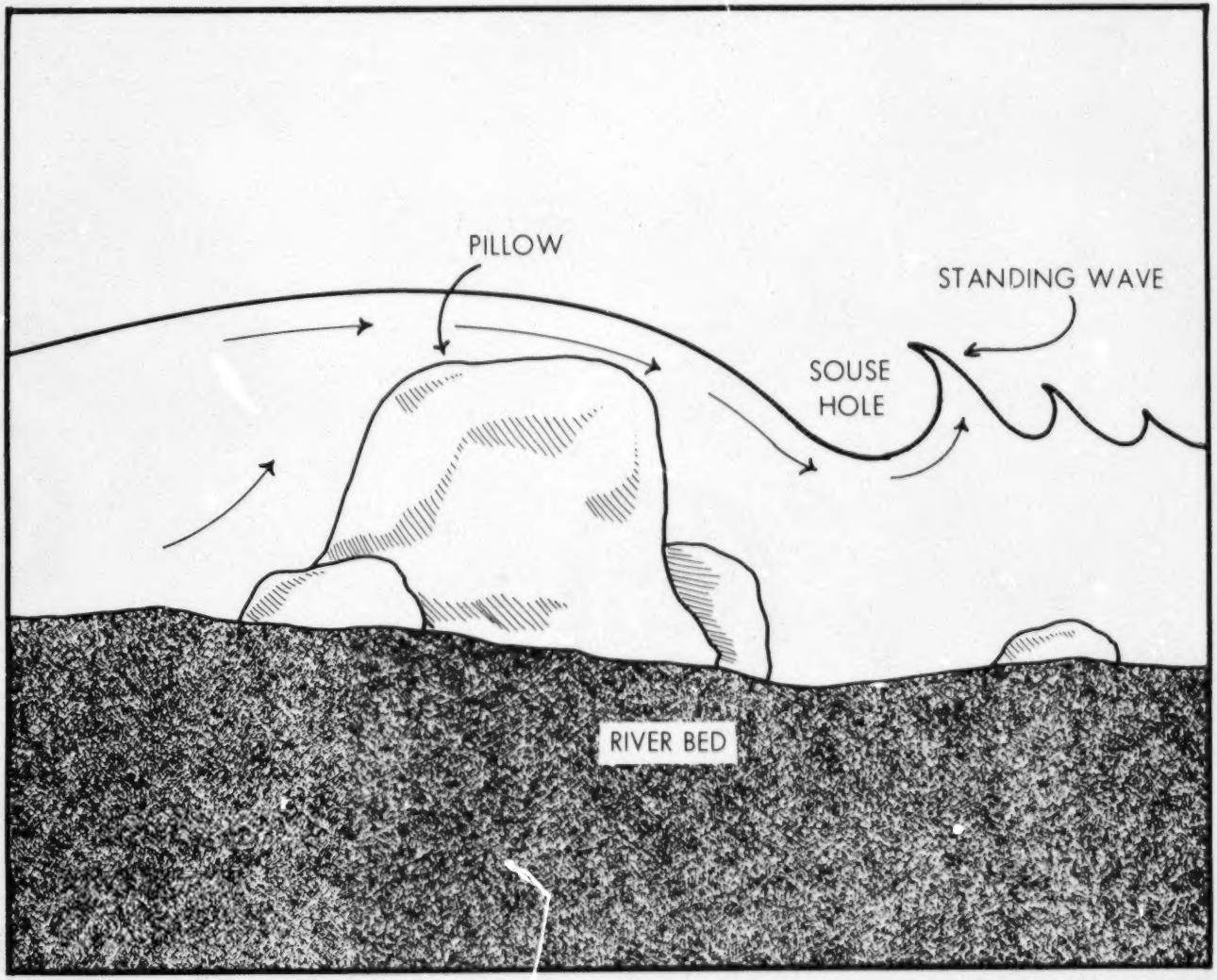
MANEUVERING IN RAPIDS

(FIGURE 4)



RIVER SITUATION

RIVER CROSS-SECTION



RIVER SITUATION

A HYDRAULIC